

**AXIAL AND RADIAL MAGNETIC FIELDS OF THICK,  
FINITE-LENGTH SOLENOIDS**

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# AXIAL AND RADIAL MAGNETIC FIELDS OF THICK, FINITE-LENGTH SOLENOIDS

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## SUMMARY

The axial and radial components of the magnetic field intensity of thick, finite-length solenoids were derived, and numerical results were computed for several combinations of coil thickness and length for two different current-density distributions. The triple integrals giving the field values were integrated twice analytically; the third integration was done numerically on electronic computers. The data are presented in tables and in sample graphs.

## INTRODUCTION

Interest in the magnetic fields produced by electric currents flowing in various coil configurations has increased tremendously because of new uses of magnetic fields, particularly in plasma containment, heating, and acceleration. The possibility of using magnetic fields to shield the occupants of the cabins of spacecraft from energetic radiation has also revived interest in the magnetic field of solenoids, especially a field off the axis.

Previous work has been confined either to fields on the axis of thick solenoids or to fields both on and off the axis of cylindrical current sheets. The variation of the field intensity along the axis of thick solenoids was reported in references 1 and 2 among others. The variation of axial and radial components of magnetic field intensity off the axis in an infinitely thin but finite-length solenoid (cylindrical current sheet) was reported in reference 3.

Expressions valid both on and off the axis are derived herein for thick coils at two current-density distributions. The triple integrals giving the field values are integrated twice analytically. The third integration was done numerically on electronic computers. Numerical results for five coil thicknesses, five lengths, and two current-density distributions are given in the form of sample curves and complete tables that can be used in coil design.

## COIL SYMBOLS AND GEOMETRY

The coil symbolism, in general, follows that of references 4 to 6. The coil geometry is illustrated in figure 1.

$A_\phi$	azimuthal component of vector potential
$a, l, \theta$	cylindrical coordinates of current element
$a_1$	inside radius of coil
$a_2$	outside radius of coil
$B$	magnetic induction
$B_r$	radial component of magnetic induction
$B_z$	axial component of magnetic induction

$B_0$	magnetic induction at geometrical center of coil
$J$	constant current density
$J(a)$	current density as function of $a$
$J_1$	current density when $a = a_1$
$L$	half-length of coil
$R$	distance from current element to field point
$r, z, \varphi$	cylindrical coordinates of field point
$dS$	area element
$\alpha$	nondimensional coil parameter, $a_2/a_1$
$\beta$	nondimensional coil parameter, $L/a_1$
$\gamma$	nondimensional coil parameter, $a/a_1$
$\delta$	nondimensional coil parameter, $\xi/a_1$ ( $\delta_1 = \xi_1/a_1$ ; $\delta_2 = \xi_2/a_1$ )
$\mu$	permeability
$\xi$	$z - l$ ( $\xi_1 = z - L$ ; $\xi_2 = z + L$ )
$\rho$	nondimensional coil parameter, $r/a_1$

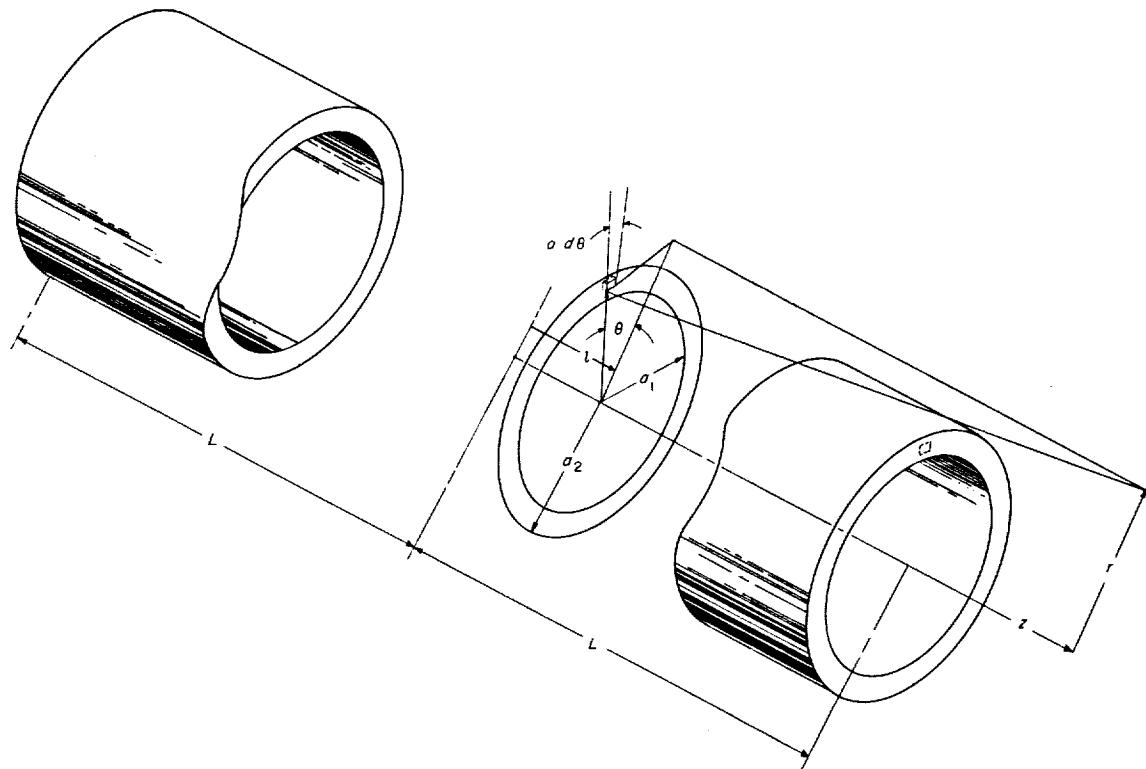


Figure 1. - Coil geometry.

## EQUATIONS FOR MACHINE PROGRAMMING

For a current loop such as the one shown in figure 1,

$$dA_\phi(r, z, \varphi) = \frac{\mu J(a) dS}{4\pi} \oint \frac{a \cos \theta d\theta}{R} \quad (1)$$

$$A_\phi(r, z, 0) = \frac{\mu}{4\pi} \int_{-L}^L dl \int_{a_1}^{a_2} a J(a) da \int_0^{2\pi} \frac{\cos \theta d\theta}{\sqrt{(z - l)^2 + r^2 + a^2 - 2ar \cos \theta}} \quad (2)$$

where  $\varphi = 0$  and  $\theta = 0$  are taken to coincide. The radial and the axial components of the magnetic intensity are given by

$$\left. \begin{aligned} B_r &= - \frac{\partial A_\phi}{\partial z} \\ B_z &= \frac{1}{r} \frac{\partial (r A_\phi)}{\partial r} \end{aligned} \right\} \quad (3)$$

and

The mathematical details of the derivation of the equations are given in the appendix. Equations (A16), (A19), (A22), and (A23) derived therein can be rewritten in convenient nondimensional form by expressing all lengths in terms of the inner radius  $a_1$  of the coil. The results are as follows:

For constant current density:

$$\begin{aligned} B_z &= \frac{\mu J a_1}{2\pi} \left\{ \delta \int_0^\pi \ln \left[ (r - \rho \cos \theta) + \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta} \right] d\theta \right. \\ &\quad \left. - \int_0^\pi \frac{\delta \rho^2 \sin^2 \theta d\theta}{(r^2 + \rho^2 - 2r\rho \cos \theta) \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta}} \right. \\ &\quad \left. - \int_0^\pi \frac{\delta}{|\delta|} \rho \sin \theta \tan^{-1} \left[ \frac{(r - \rho \cos \theta)|\delta|}{\rho \sin \theta \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta}} \right] d\theta \right\} \Bigg|_{\delta_1}^{\delta_2} \Bigg|^{\alpha} \quad (4) \end{aligned}$$

and

$$B_r = -\frac{\mu J_1 a_1}{2\pi} \left\{ \int_0^\pi \cos \theta \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta} d\theta + \int_0^\pi \rho \cos^2 \theta \ln \left[ (r - \rho \cos \theta) + \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta} \right] d\theta \right\} \Big|_{\delta_1}^{\delta_2} \Big|^{\alpha} \quad (5)$$

For current density proportional to  $1/a$ :

$$B_z = -\frac{\mu J_1 a_1}{2\pi} \int_0^\pi \frac{\delta}{|\delta|} \ln \left( |\delta| + \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta} \right) d\theta \Big|_{\delta_1}^{\delta_2} \Big|^{\alpha} + \frac{\mu J_1 a_1}{2} \frac{\delta}{|\delta|} \ln [\text{greater of } (r, \rho)] \Big|_{\delta_1}^{\delta_2} \Big|^{\alpha} \quad (6)$$

and

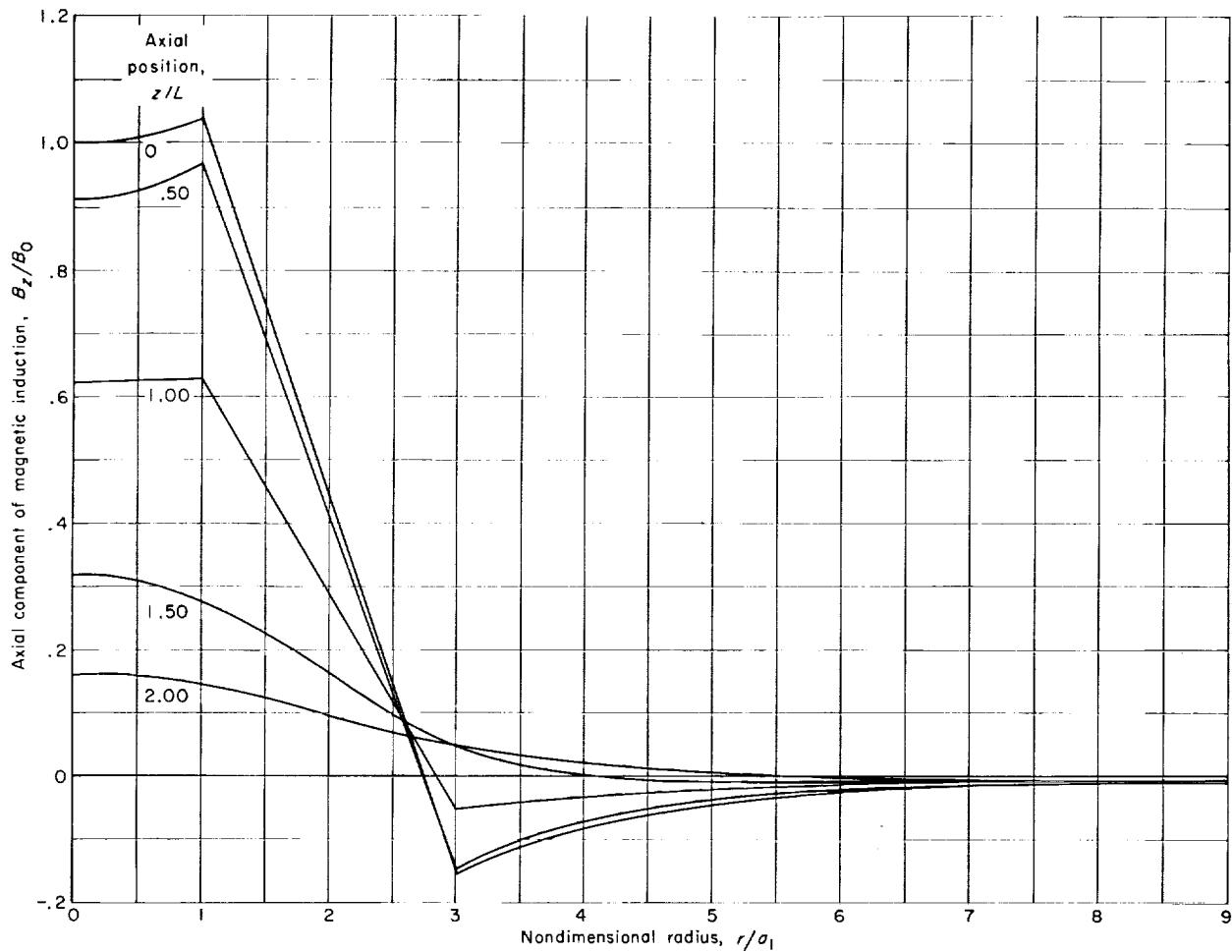
$$B_r = -\frac{\mu J_1 a_1}{2\pi} \int_0^\pi \cos \theta \ln \left[ (r - \rho \cos \theta) + \sqrt{\delta^2 + r^2 + \rho^2 - 2r\rho \cos \theta} \right] d\theta \Big|_{\delta_1}^{\delta_2} \Big|^{\alpha} \quad (7)$$

As noted in the appendix, equations (5) and (7) must be rewritten for calculating field points at  $z = L$  ( $\delta_1 = 0$ ) in order to eliminate the occurrence of a pole in the integrals. These equations were programmed for computation on electronic computers.

#### RESULTS AND DISCUSSION

The results of the calculations are given in graphs and in tables. Both axial and radial fields are presented as fractions of  $B_0$ , the field at the geometrical center of the magnet, to show most clearly how the field varies at different points in and around the coil. In tables I and II, the nondimensional axial fields  $B_z/B_0$  for the two different current-density distributions are presented as functions of the radius or distance from the axis of symmetry for nine different axial positions, namely,  $z/L = 0, 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75$ , and  $2.00$ . The values are tabulated for distances from the axis out to three times the value of the nondimensional parameter  $\alpha$ . In tables III and IV, the nondimensional radial fields  $B_r/B_0$  are tabulated for the same range of variables. In table V, the nondimensional values of the induction at the center of each solenoid are tabulated for the 25 cases.

The curves shown in figure 2 are examples of plots obtained from the tables. In figure 2(a), the axial component of the field intensity is given as a function of the nondimensional radius for four  $z/L$  points in the field for the case of



(a) Axial component. Nondimensional coil parameters:  $\beta$ , 2;  $\alpha$ , 3.  
Figure 2. - Magnetic induction in thick solenoid at constant current density.

constant current density,  $\beta = 2$ , and  $\alpha = 3$ . In figure 2(b), the same results are given for  $\beta = 10$  and  $\alpha = 1.5$ . The radial field for  $\beta = 2$  and  $\alpha = 3$  is shown in figure 2(c).

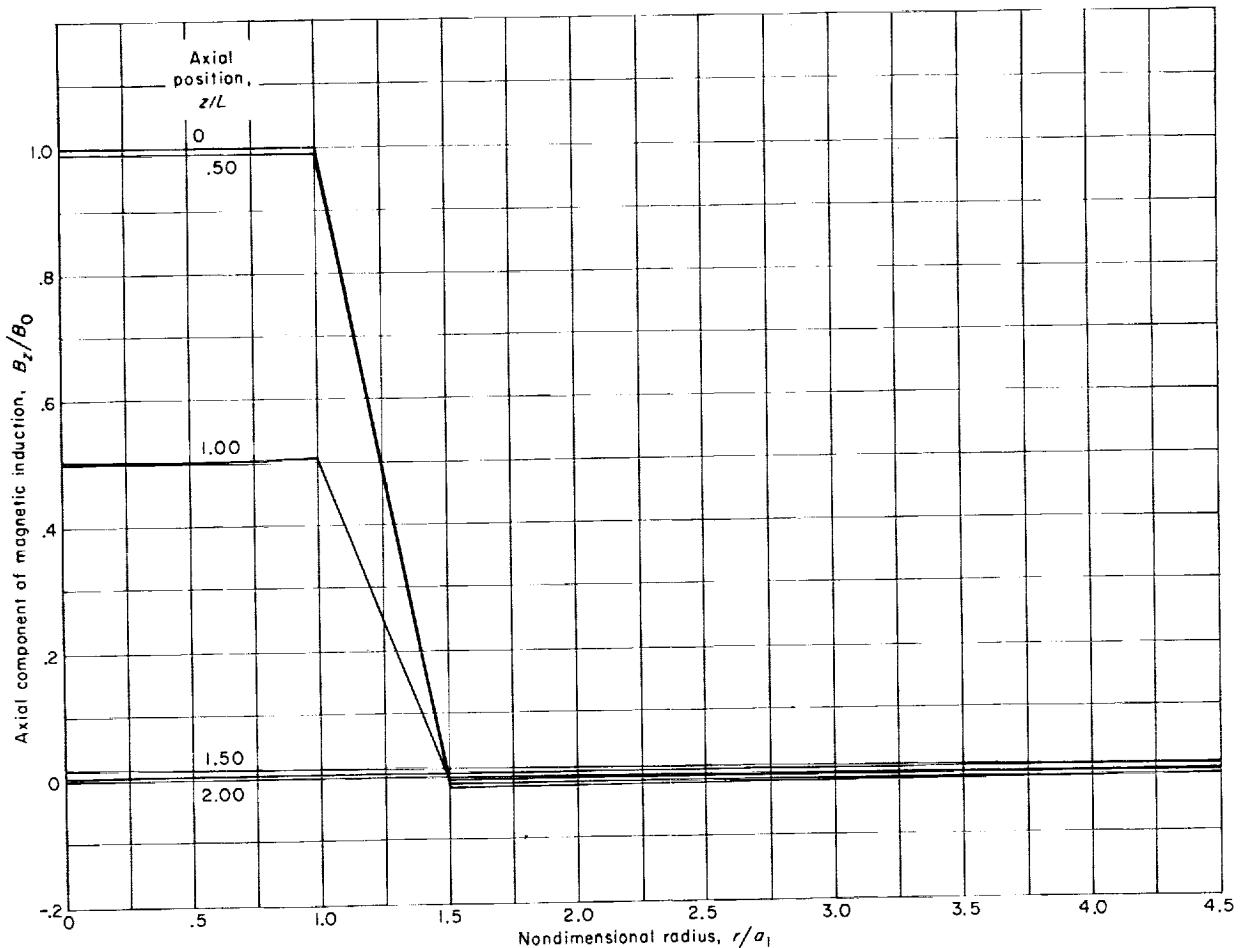
Some of the properties exhibited by the graphs and tables are

- (1) For  $z/L < 1$ , the maximum value of the axial component of the magnetic induction occurs at  $r = a_1$ , that is, at the inner wall of the coil.
- (2) For  $z/L > 1$ , the maximum value of the axial component of the magnetic induction occurs on the axis.

(3) For  $z/L \leq 1$ , in all values of  $\beta$ , the axial component of magnetic induction has a zero value at some radius smaller than  $a_2$ , and from that radius outward has a sense opposite to that at  $r = 0$ . The maximum value of the field in this opposite direction occurs at  $r = a_2$ , the outer wall of the coil.

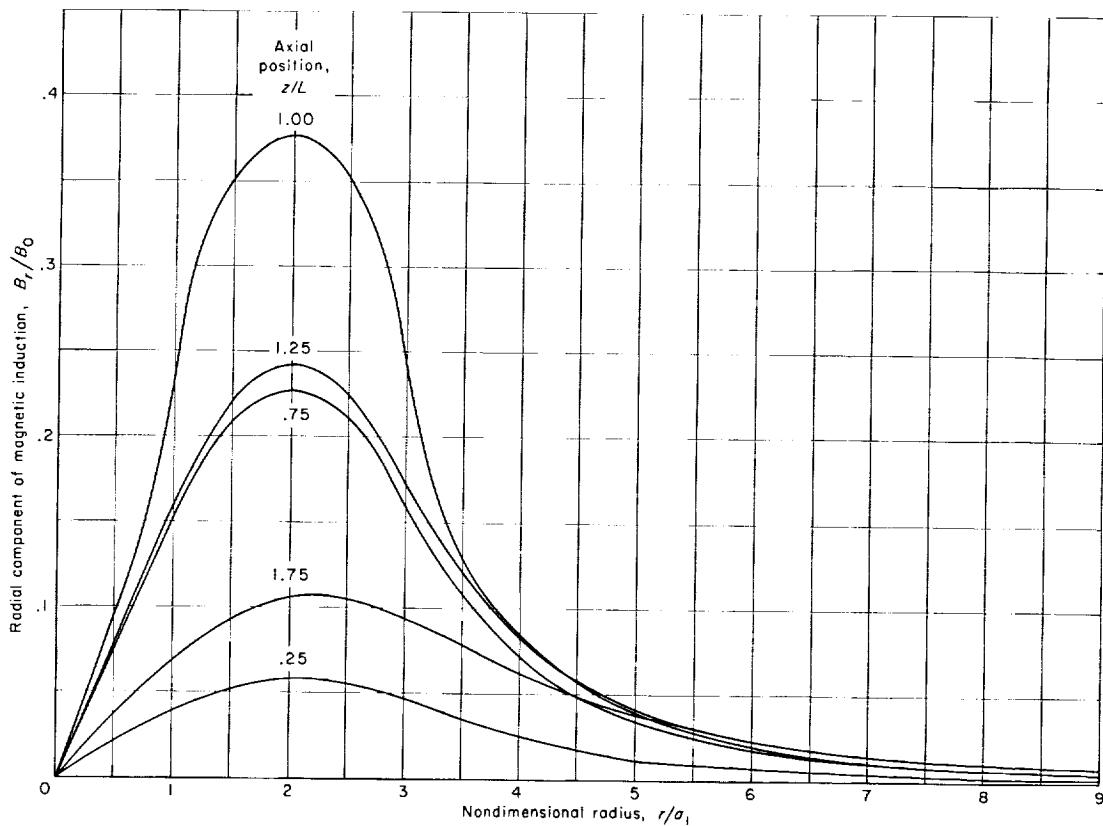
(4) The maximum value  $B_r/B_0$  occurs at the coil surface at the end of the magnet.

The tabulated values of  $B_z/B_0$  or  $B_r/B_0$  (tables I to IV) and  $B_0/\mu J a_1$  or  $B_0/\mu J a_1$  (table V) may be used to obtain the magnetic field of any size coil of geometry similar to the ones used in this report. For example, find the radial and axial components of the magnetic field of a solenoid of the dimensions  $\alpha = 3$ ,  $\beta = 5$ , and  $a_1 = 0.10$  meter with  $J = \text{constant} = 10^7$  amperes per square meter at the coordinates  $r = 0.05$  meter and  $z/L = 1.00$ .



(b) Axial component. Nondimensional coil parameters:  $\beta, 10$ ;  $\alpha, 1.5$ .

Figure 2 - Continued. Magnetic induction in thick solenoid at constant current density.



(c) Radial component. Nondimensional coil parameters:  $\beta$ , 2;  $\alpha$ , 3.  
Figure 2 - Concluded. Magnetic induction in thick solenoid at constant current density.

Obtain  $B_z/B_0 = 0.52914$  from table I,  $B_r/B_0 = 0.07676$  from table III, and  $B_0 = 1.85068 \mu\text{J}_1\text{e}_1$  from table V. Then

$$\begin{aligned} B_z &= 0.52914 \times 1.85068 \times 4\pi \times 10^{-7} \times 10^7 \times 0.10 \\ &= 1.239 \text{ webers/m}^2 \text{ or } 12,390 \text{ gauss} \end{aligned}$$

and

$$\begin{aligned} B_r &= 0.07676 \times 1.85068 \times 4\pi \times 10^{-7} \times 10^7 \times 0.10 \\ &= 0.1784 \text{ webers/m}^2 \text{ or } 1784 \text{ gauss} \end{aligned}$$

Lewis Research Center  
National Aeronautics and Space Administration  
Cleveland, Ohio, November 20, 1962

## APPENDIX - DERIVATION OF FORMULAS

For a current loop,

$$dA_\phi = \frac{\mu J}{4\pi} \oint \frac{a \cos \theta d\theta}{R} \quad (A1)$$

This equation can be readily modified for the thick solenoid case:

$$A_\phi = \frac{\mu}{4\pi} \int_{-L}^L dl \int_{a_1}^{a_2} aJ(a)da \int_0^{2\pi} \frac{\cos \theta d\theta}{\sqrt{(z-l)^2 + r^2 + a^2 - 2ar \cos \theta}} \quad (A2)$$

If  $\xi = z - l$ ,  $\xi_1 = z - L$ , and  $\xi_2 = z + L$ , equation (A2) becomes

$$A_\phi = \frac{\mu}{4\pi} \int_{\xi_1}^{\xi_2} d\xi \int_{a_1}^{a_2} aJ(a)da \int_0^{2\pi} \frac{\cos \theta d\theta}{\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \quad (A3)$$

The equation is first integrated with respect to  $\xi$  to give

$$A_\phi = \frac{\mu}{4\pi} \int_{a_1}^{a_2} aJ(a)da \int_0^{2\pi} \cos \theta \ln \left( \xi + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right) d\theta \Big|_{\xi_1}^{\xi_2} \quad (A4)$$

This equation can now be integrated with respect to  $\theta$  by parts to give

$$A_\phi = -\frac{\mu}{4\pi} \int_{a_1}^{a_2} a^2 J(a)da \int_0^{2\pi} \frac{r \sin^2 \theta d\theta}{\left( \xi + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Big|_{\xi_1}^{\xi_2} \quad (A5)$$

In the integrand of equation (A5), multiplication and division by  $\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta - \xi}$ , separation into two terms, and elimination of one term by the  $\theta$ -limits give

$$A_\phi = \frac{\mu}{4\pi} \int_{a_1}^{a_2} a^2 J(a) da \int_0^{2\pi} \frac{\xi r \sin^2 \theta d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Bigg|_{\xi_1}^{\xi_2} \quad (A6)$$

Since

$$\left. \begin{aligned} B_r &= - \frac{\partial A_\phi}{\partial z} \\ B_z &= \frac{1}{r} \frac{\partial (r A_\phi)}{\partial r} \end{aligned} \right\} \quad (3)$$

and

from equation (A4),

$$B_r = - \frac{\mu}{4\pi} \int_{a_1}^{a_2} a J(a) da \int_0^{2\pi} \frac{\cos \theta d\theta}{\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Bigg|_{\xi_1}^{\xi_2} \quad (A7)$$

$$\begin{aligned} B_z &= \frac{1}{r} \frac{\partial (r A_\phi)}{\partial r} \\ &= \frac{1}{r} A_\phi + \frac{\partial A_\phi}{\partial r} \end{aligned} \quad (A8)$$

If equations (A6) and (A8) are combined,

$$\begin{aligned} B_z &= \frac{\mu}{4\pi} \int_{a_1}^{a_2} da \left\{ \int_0^{2\pi} \frac{\xi a^2 J(a) \sin^2 \theta d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \right. \\ &\quad \left. + \int_0^{2\pi} \frac{a J(a) \cos \theta (r - a \cos \theta) d\theta}{(\xi + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \right\} \Bigg|_{\xi_1}^{\xi_2} \end{aligned} \quad (A9)$$

or

$$B_z = \frac{\mu}{4\pi} \int_{a_1}^{a_2} da \left\{ \int_0^{2\pi} \frac{\xi a^2 J(a) \sin^2 \theta d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \right. \\ \left. - \int_0^{2\pi} \frac{\xi a J(a) \cos \theta (r - a \cos \theta) d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \right\} \Bigg|_{\xi_1}^{\xi_2} \quad (A10)$$

where one term has been eliminated by application of  $\xi_1$ - and  $\xi_2$ -limits. This equation finally reduces to the expression for the axial field:

$$B_z = \frac{\mu}{4\pi} \int_{a_1}^{a_2} a J(a) da \int_0^{2\pi} \frac{\xi (a - r \cos \theta) d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Bigg|_{\xi_1}^{\xi_2} \quad (A11)$$

Proceeding further involves use of the explicit form of  $J(a)$ . Two practical physical cases are considered in this report:

(1)  $J(a) = J_1 a_1 / a$  where  $J_1$  = current density at  $a = a_1$

(2)  $J(a) = J = \text{constant}$

If the case in which  $J(a) = J_1 a_1 / a$  is first considered, then from equation (A11),

$$B_z = \frac{\mu a_1 J_1}{4\pi} \int_{a_1}^{a_2} da \int_0^{2\pi} \frac{\xi (a - r \cos \theta) d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Bigg|_{\xi_1}^{\xi_2} \quad (A12)$$

If  $x = a^2 + r^2 - 2ar \cos \theta$  and  $dx = 2(a - r \cos \theta)da$ ,

$$B_z = \frac{\mu a_1 J_1}{8\pi} \int_0^{2\pi} \int_{x_1}^{x_2} \frac{\xi dx}{x \sqrt{x + \xi^2}} d\theta \Big|_{\xi_1}^{\xi_2} \quad (A13)$$

or

$$B_z = \frac{\mu a_1 J_1}{8\pi} \int_0^{2\pi} \frac{\xi}{|\xi|} \ln \frac{\sqrt{x + \xi^2} - |\xi|}{\sqrt{x + \xi^2} + |\xi|} d\theta \Big|_{\xi_1}^{\xi_2} \Big|_{x_1}^{x_2} \quad (A14)$$

which can be simplified to

$$B_z = \frac{\mu a_1 J_1}{8\pi} \int_0^{2\pi} \frac{\xi}{|\xi|} \ln \frac{x d\theta}{(\sqrt{x + \xi^2} + |\xi|)^2} \Big|_{\xi_1}^{\xi_2} \Big|_{x_1}^{x_2} \quad (A15)$$

When original limits and variables are replaced,

$$\begin{aligned} B_z &= -\frac{\mu a_1 J_1}{2\pi} \int_0^\pi \frac{\xi}{|\xi|} \ln \left( |\xi| + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right) d\theta \Big|_{\xi_1}^{\xi_2} \Big|_{a_1}^{a_2} \\ &\quad + \frac{1}{2} \mu a_1 J_1 \left( \frac{\xi}{|\xi|} \ln [\text{greater of } (a, r)] \right) \Big|_{\xi_1}^{\xi_2} \Big|_{a_1}^{a_2} \end{aligned} \quad (A16)$$

In order to calculate  $B_z$  for a constant current density in the coils, that is,  $J(a) = J = \text{constant}$ , equation (A11) is written as follows:

$$\begin{aligned}
B_z &= \frac{\mu J}{4\pi} \int_{a_1}^{a_2} a da \int_0^{2\pi} \frac{\xi(a - r \cos \theta) d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Bigg|_{\xi_1}^{\xi_2} \\
&= \frac{\mu J \xi}{4\pi} \int_{a_1}^{a_2} a da \int_0^{2\pi} \frac{(a - r \cos \theta) d\theta}{[(a - r \cos \theta)^2 + r^2(1 - \cos^2 \theta)] \sqrt{(a - r \cos \theta)^2 + r^2(1 - \cos^2 \theta) + \xi^2}} \Bigg|_{\xi_1}^{\xi_2} \\
&= \frac{\mu J \xi}{4\pi} \int_{a_1}^{a_2} a da \int_0^{2\pi} \frac{(a - r \cos \theta) d\theta}{[(a - r \cos \theta)^2 + r^2 \sin^2 \theta] \sqrt{(a - r \cos \theta)^2 + r^2 \sin^2 \theta + \xi^2}} \Bigg|_{\xi_1}^{\xi_2} \quad (\text{A17})
\end{aligned}$$

Now when  $x = a - r \cos \theta$ ,

$$\begin{aligned}
B_z &= \frac{\mu J \xi}{4\pi} \int_{x_1}^{x_2} x dx \int_0^{2\pi} \frac{(x + r \cos \theta) d\theta}{(x^2 + r^2 \sin^2 \theta) \sqrt{x^2 + \xi^2 + r^2 \sin^2 \theta}} \Bigg|_{\xi_1}^{\xi_2} \\
&= \frac{\mu J \xi}{4\pi} \int_{x_1}^{x_2} dx \int_0^{2\pi} \left[ \frac{x^2 + r^2 \sin^2 \theta}{(x^2 + r^2 \sin^2 \theta) \sqrt{x^2 + \xi^2 + r^2 \sin^2 \theta}} + \frac{x r \cos \theta}{(x^2 + r^2 \sin^2 \theta) \sqrt{x^2 + \xi^2 + r^2 \sin^2 \theta}} \right. \\
&\quad \left. - \frac{r^2 \sin^2 \theta}{(x^2 + r^2 \sin^2 \theta) \sqrt{x^2 + \xi^2 + r^2 \sin^2 \theta}} \right] d\theta \Bigg|_{\xi_1}^{\xi_2} \\
&= \frac{\mu J \xi}{2\pi} \left\{ \int_0^\pi \ln \left[ (a - r \cos \theta) + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right] d\theta + \frac{1}{2} \int_0^\pi \frac{r \cos \theta}{|\xi|} \ln \frac{\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} - |\xi|}{\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} + |\xi|} d\theta \right. \\
&\quad \left. - \int_0^\pi \frac{r \sin \theta}{|\xi|} \tan^{-1} \frac{|\xi|(a - r \cos \theta)}{(r \sin \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} d\theta \right\} \Bigg|_{a_1}^{a_2} \Bigg|_{\xi_1}^{\xi_2} \quad (\text{A18})
\end{aligned}$$

Simplification of the second integral in (A18) by integration by parts yields

$$B_z = \frac{\mu J}{2\pi} \left\{ \xi \int_0^\pi \ln \left[ (a - r \cos \theta) + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right] d\theta \right. \\ - \xi ar^2 \int_0^\pi \frac{\sin^2 \theta \, d\theta}{(a^2 + r^2 - 2ar \cos \theta) \sqrt{\xi^2 + r^2 - a^2 - 2ar \cos \theta}} \\ \left. - \frac{r\xi}{|\xi|} \int_0^\pi \sin \theta \tan^{-1} \frac{|\xi|(a - r \cos \theta)}{(r \sin \theta) \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \, d\theta \right\} \Bigg|_{a_1}^{a_2} \Bigg|_{\xi_1}^{\xi_2} \quad (A19)$$

Equations (A16) and (A19) are valid for all values of the parameters and offer no special problems in machine calculation.

The radial components of the field can be obtained from equation (A7) by using the specific form for  $J(a)$ . It is first considered that  $J(a) = J = \text{constant}$ .

$$B_r = - \frac{\mu J}{2\pi} \int_{a_1}^{a_2} a \, da \int_0^\pi \frac{\cos \theta \, d\theta}{\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Bigg|_{\xi_1}^{\xi_2} \quad (A20)$$

If  $x = a - r \cos \theta$  and  $b^2 = \xi^2 + r^2 \sin^2 \theta$ ,

$$B_r = - \frac{\mu J}{2\pi} \left[ \int_{x_1}^{x_2} \int_0^\pi \frac{x \cos \theta \, d\theta \, dx}{\sqrt{x^2 + b^2}} + \int_{x_1}^{x_2} \int_0^\pi \frac{r \cos^2 \theta \, d\theta \, dx}{\sqrt{x^2 + b^2}} \right] \Bigg|_{\xi_1}^{\xi_2} \quad (A21)$$

or

$$B_r = -\frac{\mu J}{2\pi} \left\{ \int_0^\pi \cos \theta \frac{-\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}}{d\theta} d\theta + \int_0^\pi r \cos^2 \theta \ln \left[ (a - r \cos \theta) + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right] d\theta \right\} \Big|_{a_1}^{a_2} \Big|_{\xi_1}^{\xi_2} \quad (A22)$$

For the current density  $J(a) = J_1 a_1 / a$ , equation (A7) becomes

$$B_r = -\frac{\mu J_1 a_1}{2\pi} \int_{a_1}^{a_2} da \int_0^\pi \frac{\cos \theta d\theta}{-\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}} \Big|_{\xi_1}^{\xi_2}$$

$$= -\frac{\mu J_1 a_1}{2\pi} \int_0^\pi \cos \theta \ln \left[ (a - r \cos \theta) + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right] d\theta \Big|_{a_1}^{a_2} \Big|_{\xi_1}^{\xi_2} \quad (A23)$$

Equations (A22) and (A23) are valid except in the case in which  $\xi_2 = 0$ . A pole then exists in the integrand when  $\theta = 0$  and  $a_1 \leq r \leq a_2$  and necessi-

tates the following treatment: Since  $\int \frac{dx}{(x^2 + b^2)^{1/2}} = \sinh^{-1} \frac{x}{b}$  or

$\ln(x + \sqrt{x^2 + b^2})$ , equation (A22) can be evaluated as follows:

$$B_r = -\frac{\mu J}{2\pi} \left\{ \int_0^\pi \cos \theta \frac{-\sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta}}{d\theta} d\theta \Big|_{\xi_1}^0 \right.$$

$$- \int_0^\pi r \cos^2 \theta \ln \left( a - r \cos \theta + \sqrt{\xi^2 + r^2 + a^2 - 2ar \cos \theta} \right) d\theta$$

$$\left. + \int_0^\pi r \cos^2 \theta \sinh^{-1} \left( \frac{a - r \cos \theta}{r \sin \theta} \right) d\theta \right\} \Big|_{a_1}^{a_2} \quad (A24)$$

If  $dv = r \cos \theta d\theta$  and  $u = \cos \theta \sinh^{-1}\left(\frac{a - r \cos \theta}{r \sin \theta}\right)$ , then the last term of equation (A24) can be integrated by parts:

$$\left\{ r \sin \theta \cos \theta \sinh^{-1}\left(\frac{a - r \cos \theta}{r \sin \theta}\right) \Big|_0^\pi + r \int_0^\pi \sin^2 \theta \sinh^{-1}\left(\frac{a - r \cos \theta}{r \sin \theta}\right) d\theta \right. \\ \left. - \int_0^\pi \frac{r \sin \theta \cos \theta}{\sqrt{\left(\frac{a - r \cos \theta}{r \sin \theta}\right)^2 + 1}} \left[ \frac{r^2 \sin^2 \theta - (a - r \cos \theta)r \cos \theta}{r^2 \sin^2 \theta} \right] d\theta \right\} \Bigg|_{a_1}^{a_2}$$

By L'Hospital's rule, the first term of the preceding expression goes to zero and the remaining terms reduce to

$$\left[ \int_0^\pi r \sin^2 \theta \sinh^{-1}\left(\frac{a - r \cos \theta}{r \sin \theta}\right) d\theta - \int_0^\pi \frac{r \cos \theta(r - a \cos \theta)}{\sqrt{r^2 + a^2 - 2ar \cos \theta}} d\theta \right] \Bigg|_{a_1}^{a_2} \quad (A25)$$

Since  $\sinh^{-1}x = \ln\left(x + \sqrt{x^2 + 1}\right)$ , expression (A25) reduces to the following:

$$\left\{ \int_0^\pi r \sin^2 \theta \ln \left[ \frac{a - r \cos \theta}{r \sin \theta} + \sqrt{\left(\frac{a - r \cos \theta}{r \sin \theta}\right)^2 + 1} \right] d\theta \right. \\ \left. - \int_0^\pi \frac{r \cos \theta(r - a \cos \theta)}{\sqrt{r^2 + a^2 - 2ar \cos \theta}} d\theta \right\} \Bigg|_{a_1}^{a_2} \quad (A26)$$

For the special case in which  $\xi_2 = 0$  (at the end of the coil) and for constant current density, equation (A22) thus becomes

$$\begin{aligned}
B_r = & - \frac{\mu J}{2\pi} \left\{ - \int_0^\pi \cos \theta \sqrt{\xi_1^2 + r^2 + a^2 - 2ar \cos \theta} d\theta \right. \\
& + \int_0^\pi \cos \theta \sqrt{r^2 + a^2 - 2ar \cos \theta} d\theta \\
& - \int_0^\pi r \cos^2 \theta \ln \left( a - r \cos \theta + \sqrt{\xi_1^2 + r^2 + a^2 - 2ar \cos \theta} \right) d\theta \\
& + \int_0^\pi r \sin^2 \theta \ln \left[ \frac{a - r \cos \theta}{r \sin \theta} + \sqrt{\left( \frac{a - r \cos \theta}{r \sin \theta} \right)^2 + 1} \right] d\theta \\
& \left. - \int_0^\pi \frac{r \cos \theta (r - a \cos \theta)}{\sqrt{r^2 + a^2 - 2ar \cos \theta}} d\theta \right\} \Big|_{a_1}^{a_2} \quad (A27)
\end{aligned}$$

By a similar treatment, the radial component of field strength at the end of the coil with current distribution proportional to  $1/a$  can be calculated as follows:

$$\begin{aligned}
B_r = & - \frac{\mu J_1 a_1}{2\pi} \left[ - \int_0^\pi \cos \theta \ln \left( a - r \cos \theta + \sqrt{\xi_1^2 + r^2 + a^2 - 2ar \cos \theta} \right) d\theta \right. \\
& \left. - \int_0^\pi \frac{r - a \cos \theta}{\sqrt{r^2 + a^2 - 2ar \cos \theta}} d\theta \right] \Big|_{a_1}^{a_2} \quad (A28)
\end{aligned}$$

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TABLE I. - AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta$ , $l$ ; $a$ , 1.5									
.00	1.00000	.97785	.91220	.80753	.67627	.53864	.41413	.31297	.23596
.25	1.01110	.98885	.92227	.81452	.67783	.53496	.40792	.30677	.23089
.50	1.04442	1.02232	.95421	.83776	.68240	.52138	.38728	.28742	.21563
.75	1.09919	1.07894	1.01339	.88744	.68958	.48689	.34591	.25332	.19049
1.00	1.17172	1.15667	1.10610	.99569	.70466	.39805	.27597	.20461	.15717
1.25	.45576	.44876	.42679	.38578	.31031	.23222	.18319	.14735	.11975
1.50	-.26263	-.26231	-.25794	-.23267	-.08653	.07578	.09644	.09333	.08392
1.75	-.19530	-.19129	-.17610	-.13886	-.06702	-.00414	.03948	.05213	.05426
2.00	-.14358	-.13905	-.12422	-.09646	-.05713	-.01787	.00985	.02532	.03242
2.25	-.10607	-.10236	-.09105	-.07230	-.04831	-.02403	-.00423	.00939	.01758
2.50	-.07946	-.07675	-.06878	-.05621	-.04068	-.02466	-.01055	.00037	.00798
2.75	-.06058	-.05869	-.05318	-.04466	-.03421	-.02322	-.01303	-.00452	.00199
3.00	-.04703	-.04571	-.04190	-.03603	-.02880	-.02104	-.01358	-.00702	-.00165
3.25	-.03714	-.03622	-.03355	-.02944	-.02432	-.01873	-.01319	-.00812	-.00376
3.50	-.02980	-.02914	-.02725	-.02431	-.02061	-.01651	-.01235	-.00842	-.00491
3.75	-.02425	-.02378	-.02241	-.02027	-.01756	-.01450	-.01134	-.00827	-.00545
4.00	-.01998	-.01964	-.01863	-.01705	-.01503	-.01272	-.01029	-.00788	-.00561
4.25	-.01665	-.01640	-.01565	-.01446	-.01294	-.01117	-.00928	-.00737	-.00554
4.50	-.01402	-.01383	-.01326	-.01236	-.01119	-.00982	-.00834	-.00682	-.00534
Nondimensional coil parameters: $\beta$ , $l$ ; $a$ , 2									
.00	1.00000	.97996	.92105	.82805	.71170	.58796	.47224	.37358	.29419
.25	1.01009	.98981	.92980	.83413	.71353	.58568	.46770	.36863	.28979
.50	1.04063	1.01990	.95733	.85381	.71890	.57717	.45263	.35307	.27641
.75	1.09194	1.07150	1.00769	.89358	.72749	.55530	.42233	.32519	.25379
1.00	1.16295	1.14481	1.08655	.97345	.74208	.49898	.37000	.28364	.22234
1.25	.80474	.79149	.74879	.66659	.52975	.38891	.29442	.23011	.18398
1.50	.45405	.44727	.42601	.38691	.32188	.25405	.20647	.17064	.14244
1.75	.10115	.10057	.10023	.10454	.11433	.12247	.12188	.11355	.10237
2.00	-.26255	-.25894	-.24538	-.21058	-.10023	-.02259	-.05544	-.06637	-.06784
2.25	-.19723	-.19215	-.17498	-.13959	-.08031	-.02103	-.01454	-.03275	-.04106
2.50	-.14786	-.14319	-.12858	-.10298	-.06834	-.03327	-.00618	-.01155	-.02206
2.75	-.11187	-.10826	-.09745	-.07997	-.05790	-.03517	-.01557	-.00077	-.00942
3.00	-.08591	-.08330	-.07568	-.06374	-.04897	-.03347	-.01925	-.00752	-.00141
3.25	-.06709	-.06525	.05992	-.05166	-.04145	-.03053	-.02008	-.01093	-.00347
3.50	-.05326	-.05196	-.04821	-.04240	-.03518	-.02730	-.01951	-.01240	-.00630
3.75	-.04293	-.04201	-.03933	-.03518	-.02996	-.02417	-.01830	-.01275	-.00781
4.00	-.03509	-.03443	-.03249	-.02946	-.02562	-.02130	-.01682	-.01248	-.00848
4.25	-.02905	-.02856	-.02713	-.02489	-.02202	-.01875	-.01529	-.01187	-.00864
4.50	-.02431	-.02395	-.02288	-.02119	-.01902	-.01651	-.01382	-.01110	-.00849
4.75	-.02055	-.02027	-.01947	-.01818	-.01651	-.01456	-.01245	-.01028	-.00815
5.00	-.01753	-.01732	-.01670	-.01570	-.01441	-.01288	-.01120	-.00945	-.00771
5.25	-.01507	-.01491	-.01442	-.01365	-.01263	-.01142	-.01007	-.00866	-.00723
5.50	-.01306	-.01293	-.01255	-.01193	-.01112	-.01015	-.00907	-.00791	-.00673
5.75	-.01139	-.01128	-.01098	-.01049	-.00984	-.00906	-.00817	-.00723	-.00625
6.00	-.00999	-.00991	-.00966	-.00927	-.00874	-.00810	-.00738	-.00660	-.00578

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta$ , $l$ ; $\alpha$ , 3									
.00	1.00000	.98340	.93472	.85801	.76147	.65678	.55533	.46440	.38668
.25	1.00837	.99152	.94189	.86312	.76349	.65580	.55252	.46099	.38339
.50	1.03381	1.01637	.96429	.87940	.76950	.65179	.54312	.45024	.37332
.75	1.07699	1.05917	1.00472	.91096	.77930	.64026	.52400	.43080	.35604
1.00	1.13811	1.12086	1.06731	.97023	.79455	.60816	.49044	.40125	.33133
1.25	.94903	.93368	.88617	.80192	.67545	.54303	.44058	.36160	.29966
1.50	.77331	.76076	.72233	.65606	.56074	.46041	.37884	.31399	.26242
1.75	.60647	.59707	.56837	.51907	.44773	.37243	.31104	.26154	.22160
2.00	.44365	.43750	.41856	.38541	.33567	.28305	.24113	.20724	.17935
2.25	.28003	.27717	.26820	.25158	.22381	.19419	.17203	.15378	.13782
2.50	.11085	.11124	.11247	.11391	.11142	.10802	.10683	.10393	.09914
2.75	-.06840	-.06518	-.05456	-.03371	-.00212	.02935	.04998	.06073	.06529
3.00	-.26107	-.25615	-.23982	-.20549	-.12315	-.02848	.00741	.02697	.03784
3.25	-.20198	-.19685	-.18038	-.14924	-.10085	-.05163	-.01780	.00374	.01733
3.50	-.15672	-.15235	-.13899	-.11638	-.08642	-.05543	-.02959	-.01038	.00319
3.75	-.12296	-.11963	-.10975	-.09395	-.07399	-.05296	-.03382	-.01808	-.00590
4.00	-.09786	-.09543	-.08834	-.07724	-.06339	-.04851	-.03425	-.02173	-.01138
4.25	-.07904	-.07729	-.07221	-.06431	-.05443	-.04361	-.03287	-.02299	-.01440
4.50	-.06474	-.06348	-.05981	-.05409	-.04689	-.03886	-.03067	-.02288	-.01584
4.75	-.05372	-.05279	-.05011	-.04590	-.04055	-.03449	-.02818	-.02201	-.01626
5.00	-.04509	-.04440	-.04240	-.03926	-.03522	-.03058	-.02567	-.02075	-.01606
5.25	-.03824	-.03772	-.03621	-.03382	-.03073	-.02714	-.02327	-.01933	-.01549
5.50	-.03272	-.03233	-.03117	-.02933	-.02693	-.02412	-.02105	-.01787	-.01472
5.75	-.02824	-.02793	-.02703	-.02560	-.02372	-.02149	-.01902	-.01645	-.01385
6.00	-.02455	-.02431	-.02360	-.02247	-.02097	-.01919	-.01720	-.01509	-.01294
6.25	-.02148	-.02129	-.02073	-.01983	-.01863	-.01719	-.01557	-.01383	-.01205
6.50	-.01891	-.01876	-.01831	-.01758	-.01661	-.01544	-.01411	-.01267	-.01118
6.75	-.01674	-.01662	-.01626	-.01566	-.01487	-.01390	-.01281	-.01161	-.01036
7.00	-.01490	-.01480	-.01450	-.01401	-.01336	-.01256	-.01165	-.01065	-.00959
7.25	-.01332	-.01323	-.01299	-.01259	-.01204	-.01138	-.01061	-.00977	-.00888
7.50	-.01196	-.01189	-.01168	-.01135	-.01089	-.01034	-.00969	-.00898	-.00822
7.75	-.01078	-.01072	-.01055	-.01026	-.00988	-.00941	-.00887	-.00826	-.00761
8.00	-.00975	-.00970	-.00955	-.00932	-.00899	-.00860	-.00813	-.00761	-.00705
8.25	-.00885	-.00880	-.00868	-.00848	-.00821	-.00787	-.00747	-.00703	-.00654
8.50	-.00805	-.00802	-.00791	-.00774	-.00751	-.00722	-.00688	-.00649	-.00607
8.75	-.00736	-.00733	-.00724	-.00709	-.00689	-.00664	-.00634	-.00601	-.00565
9.00	-.00674	-.00671	-.00663	-.00651	-.00633	-.00612	-.00586	-.00557	-.00525

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta$ , $l_i$ , $\alpha$ , 4									
.00	1.00000	.98566	.94360	.87720	.79320	.70112	.61028	.52683	.45336
.25	1.00723	.99268	.94982	.88173	.79521	.70067	.60829	.52426	.45077
.50	1.02921	1.01413	.96917	.89604	.80121	.69851	.60156	.51612	.44284
.75	1.06657	1.05107	1.00392	.92339	.81107	.69117	.58764	.50132	.42920
1.00	1.11965	1.10440	1.05739	.97345	.82611	.66853	.56282	.47867	.40955
1.25	.98167	.96761	.92447	.84922	.73840	.62095	.52555	.44804	.38411
1.50	.85661	.84433	.80708	.74401	.65516	.56033	.47907	.41085	.35373
1.75	.74163	.73125	.69998	.64761	.57438	.49589	.42757	.36915	.31961
2.00	.63383	.62524	.59942	.55620	.49552	.43036	.37358	.32471	.28296
2.25	.53058	.52367	.50283	.46775	.41800	.36460	.31843	.27879	.24483
2.50	.42956	.42426	.40819	.38079	.34125	.29887	.26291	.23231	.20612
2.75	.32855	.32490	.31367	.29403	.26467	.23330	.20760	.18609	.16768
3.00	.22530	.22340	.21739	.20615	.18771	.16806	.15315	.14099	.13038
3.25	.11734	.11738	.11719	.11559	.10984	.10360	.10056	.09811	.09521
3.50	.00196	.00403	.01026	.02015	.03057	.04115	.05157	.05898	.06333
3.75	- .12384	- .11997	- .10762	- .08466	- .05056	- .01580	.00928	.02558	.03598
4.00	- .26173	- .25683	- .24093	- .20901	- .13964	- .05704	- .02190	- .00014	.01412
4.25	- .20736	- .20252	- .18720	- .15893	- .11593	- .07169	- .03959	- .01741	- .00192
4.50	- .16468	- .16062	- .14827	- .12755	- .10021	- .07157	- .04683	- .02741	- .01269
4.75	- .13243	- .12932	- .12010	- .10539	- .08674	- .06682	- .04821	- .03228	- .01930
5.00	- .10793	- .10563	- .09893	- .08841	- .07519	- .06080	- .04671	- .03394	- .02294
5.25	- .08915	- .08747	- .08259	- .07497	- .06535	- .05469	- .04391	- .03372	- .02457
5.50	- .07457	- .07334	- .06975	- .06414	- .05699	- .04894	- .04059	- .03247	- .02491
5.75	- .06309	- .06217	- .05950	- .05529	- .04989	- .04372	- .03719	- .03067	- .02446
6.00	- .05392	- .05323	- .05120	- .04800	- .04386	- .03906	- .03390	- .02865	- .02353
6.25	- .04650	- .04596	- .04441	- .04194	- .03872	- .03494	- .03082	- .02656	- .02234
6.50	- .04042	- .04000	- .03879	- .03686	- .03432	- .03132	- .02800	- .02453	- .02102
6.75	- .03538	- .03506	- .03410	- .03257	- .03055	- .02814	- .02545	- .02259	- .01967
7.00	- .03118	- .03092	- .03016	- .02893	- .02730	- .02534	- .02314	- .02078	- .01834
7.25	- .02763	- .02742	- .02681	- .02581	- .02449	- .02289	- .02107	- .01911	- .01706
7.50	- .02461	- .02444	- .02394	- .02313	- .02205	- .02072	- .01922	- .01757	- .01585
7.75	- .02203	- .02189	- .02148	- .02081	- .01991	- .01882	- .01756	- .01617	- .01471
8.00	- .01981	- .01969	- .01935	- .01880	- .01805	- .01713	- .01607	- .01490	- .01365
8.25	- .01788	- .01778	- .01750	- .01703	- .01641	- .01563	- .01474	- .01374	- .01268
8.50	- .01620	- .01612	- .01588	- .01549	- .01496	- .01430	- .01354	- .01269	- .01177
8.75	- .01473	- .01466	- .01446	- .01412	- .01367	- .01312	- .01246	- .01173	- .01094
9.00	- .01343	- .01337	- .01320	- .01292	- .01253	- .01206	- .01150	- .01087	- .01018
9.25	- .01229	- .01224	- .01209	- .01185	- .01152	- .01110	- .01062	- .01008	- .00948
9.50	- .01127	- .01123	- .01110	- .01089	- .01061	- .01025	- .00983	- .00936	- .00884
9.75	- .01036	- .01033	- .01022	- .01004	- .00979	- .00948	- .00912	- .00870	- .00825
10.00	- .00955	- .00952	- .00943	- .00927	- .00905	- .00879	- .00847	- .00810	- .00771
10.50	- .00817	- .00815	- .00808	- .00796	- .00779	- .00759	- .00734	- .00706	- .00675
11.00	- .00705	- .00703	- .00698	- .00688	- .00675	- .00659	- .00640	- .00618	- .00594
11.50	- .00613	- .00611	- .00607	- .00599	- .00589	- .00577	- .00561	- .00544	- .00524
12.00	- .00536	- .00535	- .00531	- .00525	- .00517	- .00507	- .00495	- .00481	- .00465

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l, \alpha, 5$									
.00	1.00000	.98719	.94961	.89020	.81479	.73160	.64871	.57153	.50241
.25	1.00646	.99346	.95518	.89431	.81673	.73141	.64717	.56944	.50027
.50	1.02608	1.01262	.97250	.90727	.82251	.73015	.64189	.56283	.49371
.75	1.05944	1.04558	1.00351	.93183	.83205	.72487	.63079	.55075	.48238
1.00	1.10687	1.09318	1.05107	.97627	.84648	.70701	.61073	.53218	.46604
1.25	.99314	.98038	.94134	.87357	.77434	.66841	.58038	.50699	.44482
1.50	.89130	.87995	.84562	.78772	.70655	.61917	.54249	.47635	.41941
1.75	.79911	.78924	.75957	.71015	.64146	.56710	.50055	.44195	.39075
2.00	.71432	.70579	.68022	.63774	.57868	.51454	.45668	.40519	.35977
2.25	.63500	.62765	.60559	.56892	.51779	.46217	.41193	.36703	.32721
2.50	.55959	.55326	.53429	.50265	.45836	.41018	.36680	.32805	.29364
2.75	.48675	.48137	.46519	.43811	.39997	.35854	.32154	.28864	.25949
3.00	.41534	.41086	.39733	.37455	.34220	.30715	.27627	.24908	.22511
3.25	.34424	.34066	.32979	.31129	.28462	.25588	.23110	.20960	.19082
3.50	.27232	.26969	.26162	.24760	.22684	.20459	.18611	.17047	.15695
3.75	.19833	.19676	.19181	.18275	.16843	.15323	.14151	.13203	.12392
4.00	.12081	.12046	.11911	.11585	.10901	.10186	.09767	.09479	.09226
4.25	.03799	.03905	.04197	.04578	.04820	.05084	.05535	.05957	.06267
4.50	-.05222	-.04962	-.04182	-.02920	-.01435	-.00119	.01594	.02756	.03603
4.75	-.15255	-.14857	-.13603	-.11310	-.07915	-.04415	-.01795	-.00039	-.01333
5.00	-.26321	-.25849	-.24331	-.21336	-.15207	-.07654	-.04257	-.02027	-.00461
5.25	-.21247	-.20790	-.19352	-.16726	-.12759	-.08650	-.05586	-.03378	-.01756
5.50	-.17144	-.16762	-.15602	-.13664	-.11110	-.08412	-.06034	-.04111	-.02598
5.75	-.14031	-.13737	-.12866	-.11474	-.09706	-.07801	-.05993	-.04410	-.03082
6.00	-.11632	-.11413	-.10772	-.09766	-.08496	-.07101	-.05716	-.04438	-.03311
6.25	-.09765	-.09603	-.09132	-.08393	-.07457	-.06410	-.05339	-.04311	-.03369
6.50	-.08293	-.08173	-.07822	-.07271	-.06567	-.05767	-.04929	-.04101	-.03320
6.75	-.07116	-.07026	-.06761	-.06344	-.05805	-.05184	-.04522	-.03852	-.03204
7.00	-.06163	-.06094	-.05891	-.05569	-.05151	-.04664	-.04134	-.03590	-.03052
7.25	-.05380	-.05327	-.05169	-.04918	-.04589	-.04201	-.03775	-.03329	-.02882
7.50	-.04731	-.04689	-.04565	-.04366	-.04104	-.03793	-.03446	-.03079	-.02705
7.75	-.04187	-.04154	-.04055	-.03896	-.03685	-.03431	-.03147	-.02843	-.02530
8.00	-.03727	-.03700	-.03620	-.03491	-.03320	-.03112	-.02878	-.02624	-.02360
8.25	-.03334	-.03312	-.03247	-.03142	-.03001	-.02830	-.02635	-.02422	-.02199
8.50	-.02997	-.02979	-.02926	-.02839	-.02722	-.02580	-.02416	-.02237	-.02047
8.75	-.02706	-.02691	-.02647	-.02574	-.02477	-.02357	-.02220	-.02067	-.01905
9.00	-.02452	-.02440	-.02403	-.02342	-.02260	-.02159	-.02043	-.01913	-.01774
9.25	-.02230	-.02220	-.02189	-.02138	-.02068	-.01983	-.01883	-.01772	-.01652
9.50	-.02035	-.02026	-.02000	-.01957	-.01898	-.01824	-.01739	-.01643	-.01540
9.75	-.01863	-.01856	-.01833	-.01796	-.01745	-.01683	-.01609	-.01526	-.01436
10.00	-.01710	-.01704	-.01684	-.01653	-.01609	-.01555	-.01491	-.01419	-.01341
10.50	-.01452	-.01448	-.01433	-.01409	-.01377	-.01336	-.01287	-.01233	-.01172
11.00	-.01245	-.01241	-.01230	-.01212	-.01187	-.01156	-.01119	-.01076	-.01029
11.50	-.01076	-.01073	-.01065	-.01051	-.01031	-.01007	-.00978	-.00944	-.00907
12.00	-.00937	-.00935	-.00928	-.00917	-.00902	-.00882	-.00859	-.00833	-.00804
13.00	-.00724	-.00722	-.00718	-.00711	-.00701	-.00689	-.00674	-.00657	-.00638
14.00	-.00572	-.00571	-.00568	-.00563	-.00557	-.00548	-.00538	-.00527	-.00514
15.00	-.00460	-.00459	-.00457	-.00454	-.00449	-.00444	-.00437	-.00429	-.00420

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; \alpha, 1.5$									
.00	1.00000	.98063	.91381	.77623	.56271	.34701	.20233	.12160	.07727
.25	1.00232	.98348	.91827	.78166	.56285	.34188	.19829	.11941	.07614
.50	1.00907	.99183	.93162	.79936	.56324	.32506	.18615	.11301	.07285
.75	1.01968	1.00500	.95353	.83383	.56388	.29202	.16619	.10292	.06769
1.00	1.03325	1.02184	.98251	.89061	.56910	.23714	.13977	.09009	.06111
1.25	.45886	.45099	.42551	.37533	.27086	.16491	.11002	.07581	.05365
1.50	-.11484	-.11941	-.13213	-.14387	-.02941	.09691	.08125	.06147	.04590
1.75	-.09910	-.10101	-.10428	-.09510	-.02157	.05094	.05699	.04827	.03836
2.00	-.08448	-.08456	-.08219	-.06662	-.02022	.02538	.03854	.03691	.03142
2.25	-.07144	-.07044	-.06543	-.04992	-.01885	.01163	.02539	.02763	.02529
2.50	-.06015	-.05865	-.05285	-.03938	-.01748	.00401	.01628	.02033	.02006
2.75	-.05058	-.04895	-.04332	-.03219	-.01614	-.00035	.01004	.01470	.01570
3.00	-.04258	-.04103	-.03599	-.02696	-.01485	-.00289	.00576	.01043	.01214
3.25	-.03596	-.03456	-.03024	-.02296	-.01362	-.00434	.00283	.00721	.00926
3.50	-.03048	-.02928	-.02566	-.01980	-.01247	-.00514	.00081	.00479	.00696
3.75	-.02596	-.02495	-.02195	-.01722	-.01140	-.00552	-.00056	.00298	.00513
4.00	-.02223	-.02138	-.01892	-.01509	-.01041	-.00564	-.00149	.00163	.00369
4.25	-.01913	-.01843	-.01641	-.01329	-.00950	-.00560	-.00211	.00063	.00254
4.50	-.01655	-.01597	-.01431	-.01177	-.00867	-.00545	-.00251	-.00011	.00165
Nondimensional coil parameters: $\beta, 2; \alpha, 2$									
.00	1.00000	.97884	.90922	.77673	.58413	.38854	.24644	.15843	.10555
.25	1.00257	.98181	.91322	.78094	.58431	.38473	.24298	.15627	.10431
.50	1.01011	.99055	.92527	.79457	.58485	.37230	.23251	.14991	.10067
.75	1.02219	1.00465	.94544	.82073	.58573	.34808	.21489	.13963	.09485
1.00	1.03805	1.02329	.97322	.86395	.58923	.30746	.19052	.12606	.08721
1.25	.74434	.73289	.69461	.61239	.43218	.24983	.16086	.11010	.07825
1.50	.45226	.44435	.41906	.37038	.27766	.18309	.12867	.09297	.06854
1.75	.16064	.15604	.14298	.12650	.12329	.11856	.09736	.07594	.05866
2.00	-.13158	-.13344	-.13680	-.13002	-.03559	.06688	.06991	.06015	.04913
2.25	-.11284	-.11272	-.10972	-.09229	-.02897	.03341	.04801	.04636	.04034
2.50	-.09602	-.09468	-.08838	-.06916	-.02696	.01455	.03175	.03489	.03255
2.75	-.08135	-.07940	-.07197	-.05459	-.02498	.00416	.02020	.02571	.02586
3.00	-.06881	-.06669	-.05937	-.04472	-.02305	-.00168	.01218	.01854	.02024
3.25	-.05825	-.05620	-.04957	-.03756	-.02121	-.00501	.00665	.01305	.01562
3.50	-.04942	-.04758	-.04184	-.03209	-.01947	-.00688	.00285	.00888	.01187
3.75	-.04209	-.04049	-.03565	-.02776	-.01783	-.00786	.00025	.00574	.00885
4.00	-.03600	-.03464	-.03061	-.02422	-.01632	-.00830	-.00152	.00339	.00645
4.25	-.03094	-.02980	-.02648	-.02128	-.01491	-.00840	-.00270	.00163	.00454
4.50	-.02673	-.02578	-.02304	-.01880	-.01363	-.00828	-.00348	-.00033	.00304
4.75	-.02320	-.02242	-.02016	-.01669	-.01245	-.00803	-.00396	-.00063	.00186
5.00	-.02024	-.01960	-.01773	-.01487	-.01138	-.00769	-.00424	-.00132	.00094
5.25	-.01774	-.01721	-.01567	-.01330	-.01040	-.00731	-.00437	-.00182	.00022
5.50	-.01563	-.01518	-.01390	-.01194	-.00952	-.00692	-.00440	-.00216	-.00033
5.75	-.01382	-.01346	-.01239	-.01075	-.00872	-.00651	-.00435	-.00240	-.00075
6.00	-.01228	-.01197	-.01108	-.00970	-.00799	-.00612	-.00426	-.00254	-.00106

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; \alpha, 3$									
.00	1.00000	.97841	.91053	.79025	.62459	.45446	.32009	.22630	.16283
.25	1.00266	.98127	.91386	.79337	.62487	.45194	.31748	.22442	.16158
.50	1.01055	.98980	.92395	.80333	.62569	.44374	.30955	.21880	.15786
.75	1.02342	1.00380	.94097	.82206	.62703	.42789	.29606	.20956	.15180
1.00	1.04085	1.02286	.96487	.85245	.63015	.40141	.27693	.19693	.14361
1.25	.88704	.87117	.81992	.72028	.54352	.36325	.25260	.18134	.13358
1.50	.73639	.72306	.68009	.59747	.45857	.31652	.22408	.16339	.12210
1.75	.58798	.57744	.54373	.47984	.37393	.26526	.19283	.14386	.10960
2.00	.44083	.43317	.40908	.36439	.28953	.21233	.16041	.12360	.09658
2.25	.29392	.28906	.27437	.24879	.20530	.15987	.12838	.10346	.08351
2.50	.14632	.14400	.13788	.13065	.12117	.11015	.09826	.08428	.07085
2.75	-.00278	-.00301	-.00204	-.00666	-.03707	-.06630	-.07149	-.06676	-.05899
3.00	-.15393	-.15260	-.14658	-.12726	-.05093	-.03234	-.04918	-.05139	-.04821
3.25	-.13245	-.13013	-.12125	-.09829	-.04366	-.01040	-.03178	-.03843	-.03868
3.50	-.11349	-.11070	-.10081	-.07899	-.04035	-.00204	-.01894	-.02788	-.03048
3.75	-.09717	-.09427	-.08462	-.06571	-.03721	-.00884	-.00982	-.01951	-.02357
4.00	-.08325	-.08050	-.07172	-.05595	-.03424	-.01251	-.00348	-.01302	-.01786
4.25	-.07148	-.06900	-.06136	-.04838	-.03145	-.01438	-.00087	-.00806	-.01319
4.50	-.06157	-.05941	-.05291	-.04229	-.02886	-.01520	-.00381	-.00431	-.00943
4.75	-.05325	-.05141	-.04595	-.03726	-.02646	-.01537	-.00576	-.00150	-.00642
5.00	-.04625	-.04470	-.04015	-.03303	-.02424	-.01515	-.00701	-.00058	-.00403
5.25	-.04035	-.03906	-.03528	-.02942	-.02222	-.01468	-.00777	-.00210	-.00216
5.50	-.03537	-.03429	-.03115	-.02631	-.02036	-.01408	-.00819	-.00320	-.00069
5.75	-.03114	-.03024	-.02764	-.02362	-.01867	-.01339	-.00836	-.00398	-.00045
6.00	-.02754	-.02679	-.02462	-.02127	-.01713	-.01267	-.00835	-.00451	-.00132
6.25	-.02446	-.02383	-.02202	-.01921	-.01573	-.01195	-.00823	-.00485	-.00198
6.50	-.02181	-.02129	-.01976	-.01740	-.01446	-.01124	-.00802	-.00505	-.00248
6.75	-.01953	-.01908	-.01780	-.01580	-.01331	-.01055	-.00776	-.00515	-.00284
7.00	-.01754	-.01717	-.01608	-.01439	-.01226	-.00989	-.00746	-.00516	-.00309
7.25	-.01582	-.01550	-.01457	-.01313	-.01131	-.00926	-.00715	-.00511	-.00326
7.50	-.01431	-.01403	-.01325	-.01201	-.01044	-.00867	-.00683	-.00503	-.00336
7.75	-.01298	-.01275	-.01207	-.01101	-.00966	-.00812	-.00650	-.00491	-.00341
8.00	-.01181	-.01161	-.01103	-.01012	-.00894	-.00760	-.00618	-.00477	-.00343
8.25	-.01078	-.01061	-.01010	-.00931	-.00829	-.00712	-.00587	-.00461	-.00341
8.50	-.00986	-.00971	-.00928	-.00859	-.00770	-.00667	-.00557	-.00445	-.00336
8.75	-.00904	-.00892	-.00854	-.00794	-.00716	-.00625	-.00528	-.00428	-.00330
9.00	-.00832	-.00820	-.00787	-.00735	-.00667	-.00587	-.00500	-.00411	-.00323

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2, \alpha, 4$									
.00	1.00000	.97950	.91613	.80671	.65866	.50504	.37836	.28413	.21576
.25	1.00254	.98216	.91906	.80934	.65900	.50314	.37627	.28251	.21460
.50	1.01010	.99012	.92792	.81768	.66002	.49696	.36991	.27769	.21115
.75	1.02253	1.00325	.94286	.83318	.66171	.48501	.35908	.26970	.20549
1.00	1.03956	1.02131	.96394	.85803	.66498	.46503	.34364	.25868	.19774
1.25	.93091	.91403	.86093	.76312	.60198	.43615	.32382	.24488	.18809
1.50	.82597	.81074	.76295	.67604	.54046	.40054	.30023	.22864	.17677
1.75	.72413	.71075	.66896	.59386	.47940	.36100	.27374	.21042	.16407
2.00	.62470	.61333	.57790	.51464	.41874	.31932	.24523	.19072	.15032
2.25	.52698	.51769	.48878	.43719	.35839	.27651	.21548	.17005	.13585
2.50	.43021	.42303	.40070	.36067	.29828	.23326	.18520	.14894	.12102
2.75	.33368	.32858	.31280	.28434	.23833	.19013	.15505	.12789	.10616
3.00	.23665	.23357	.22420	.20745	.17846	.14772	.12568	.10740	.09163
3.25	.13847	.13726	.13398	.12904	.11860	.10683	.09786	.08796	.07773
3.50	.03854	.03897	.04116	.04773	.05870	.06869	.07239	.07003	.06474
3.75	-.06374	-.06199	-.05539	-.03878	-.00138	.03537	.05013	.05402	.05288
4.00	-.16835	-.16568	-.15608	-.13309	-.06534	.00975	.03176	.04018	.04231
4.25	-.14615	-.14296	-.13192	-.10751	-.05702	-.00665	.01751	.02863	.03310
4.50	-.12634	-.12298	-.11181	-.08937	-.05258	-.01573	.00705	.01927	.02525
4.75	-.10936	-.10610	-.09565	-.07634	-.04849	-.02042	-.00033	.01189	.01868
5.00	-.09480	-.09180	-.08249	-.06634	-.04466	-.02263	-.00538	.00620	.01328
5.25	-.08239	-.07974	-.07169	-.05832	-.04109	-.02344	-.00875	.00188	.00889
5.50	-.07185	-.06956	-.06271	-.05168	-.03778	-.02342	-.01093	-.00135	.00537
5.75	-.06290	-.06095	-.05519	-.04608	-.03473	-.02291	-.01227	-.00373	.00257
6.00	-.05530	-.05364	-.04882	-.04127	-.03193	-.02210	-.01301	-.00545	.00038
6.25	-.04881	-.04743	-.04339	-.03712	-.02937	-.02113	-.01334	-.00666	-.00133
6.50	-.04327	-.04211	-.03873	-.03350	-.02702	-.02007	-.01338	-.00749	-.00264
6.75	-.03852	-.03754	-.03470	-.03032	-.02488	-.01898	-.01322	-.00802	-.00363
7.00	-.03442	-.03360	-.03121	-.02752	-.02293	-.01790	-.01291	-.00833	-.00437
7.25	-.03087	-.03018	-.02817	-.02505	-.02115	-.01684	-.01251	-.00847	-.00491
7.50	-.02779	-.02721	-.02550	-.02286	-.01953	-.01582	-.01206	-.00848	-.00528
7.75	-.02511	-.02461	-.02316	-.02090	-.01805	-.01485	-.01157	-.00841	-.00553
8.00	-.02275	-.02233	-.02109	-.01916	-.01671	-.01394	-.01106	-.00826	-.00567
8.25	-.02068	-.02032	-.01926	-.01760	-.01548	-.01307	-.01055	-.00806	-.00574
8.50	-.01886	-.01854	-.01763	-.01620	-.01436	-.01226	-.01004	-.00783	-.00574
8.75	-.01724	-.01697	-.01618	-.01494	-.01334	-.01150	-.00954	-.00758	-.00569
9.00	-.01580	-.01557	-.01488	-.01381	-.01241	-.01080	-.00906	-.00731	-.00561
9.25	-.01452	-.01432	-.01372	-.01278	-.01156	-.01014	-.00860	-.00703	-.00550
9.50	-.01337	-.01319	-.01268	-.01185	-.01078	-.00952	-.00816	-.00676	-.00537
9.75	-.01234	-.01219	-.01173	-.01101	-.01006	-.00895	-.00774	-.00648	-.00523
10.00	-.01142	-.01128	-.01088	-.01024	-.00941	-.00842	-.00734	-.00621	-.00508
10.50	-.00982	-.00972	-.00941	-.00891	-.00825	-.00747	-.00660	-.00568	-.00475
11.00	-.00852	-.00843	-.00819	-.00779	-.00727	-.00664	-.00594	-.00519	-.00443
11.50	-.00743	-.00736	-.00717	-.00685	-.00643	-.00592	-.00535	-.00474	-.00410
12.00	-.00652	-.00647	-.00631	-.00606	-.00571	-.00530	-.00483	-.00433	-.00380

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FONCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; \alpha, 5$									
.00	1.00000	.98082	.92196	.82140	.68620	.54477	.42503	.33247	.26231
.25	1.00238	.98329	.92461	.82375	.68659	.54323	.42328	.33107	.26127
.50	1.00948	.99068	.93262	.83115	.68774	.53823	.41795	.32688	.25815
.75	1.02119	1.00289	.94614	.84482	.68965	.52852	.40885	.31993	.25300
1.00	1.03731	1.01977	.96522	.86657	.69307	.51222	.39588	.31031	.24593
1.25	.95035	.93381	.88241	.78987	.64198	.48860	.37917	.29819	.23705
1.50	.86715	.85181	.80432	.72003	.59232	.45943	.35920	.28383	.22654
1.75	.78727	.77328	.73016	.65468	.54325	.42698	.33663	.26756	.21461
2.00	.71022	.69766	.65912	.59226	.49469	.39266	.31212	.24972	.20147
2.25	.63549	.62441	.59046	.53186	.44658	.35725	.28622	.23067	.18737
2.50	.56255	.55296	.52359	.47288	.39884	.32118	.25937	.21074	.17254
2.75	.49089	.48278	.45794	.41486	.35141	.28476	.23194	.19024	.15722
3.00	.41998	.41336	.39301	.35744	.30420	.24820	.20424	.16946	.14165
3.25	.34932	.34419	.32834	.30025	.25713	.21169	.17657	.14869	.12605
3.50	.27840	.27475	.26342	.24295	.21013	.17543	.14923	.12821	.11067
3.75	.20672	.20454	.19775	.18513	.16314	.13966	.12257	.10833	.09571
4.00	.13379	.13303	.13075	.12630	.11608	.10474	.09701	.08937	.08141
4.25	.05915	.05972	.06177	.06577	.06889	.07125	.07304	.07164	.06798
4.50	-.01761	-.01588	-.00993	.00246	.02152	.04013	.05127	.05547	.05559
4.75	-.09714	-.09449	-.08543	-.06570	-.02624	.01305	.03236	.04115	.04440
5.00	-.17870	-.17543	-.16435	-.14017	-.07790	-.00763	.01683	.02885	.03451
5.25	-.15659	-.15303	-.14116	-.11651	-.06869	-.02063	.00487	.01863	.02595
5.50	-.13636	-.13277	-.12115	-.09874	-.06333	-.02753	-.00383	.01039	.01868
5.75	-.11912	-.11573	-.10502	-.08575	-.05850	-.03074	-.00987	.00395	.01263
6.00	-.10427	-.10118	-.09170	-.07552	-.05399	-.03189	-.01388	-.00099	.00768
6.25	-.09152	-.08880	-.08060	-.06712	-.04981	-.03188	-.01645	-.00468	.00369
6.50	-.08060	-.07825	-.07126	-.06006	-.04594	-.03118	-.01797	-.00739	.00051
6.75	-.07125	-.06924	-.06333	-.05401	-.04238	-.03009	-.01877	-.00933	-.00199
7.00	-.06322	-.06152	-.05655	-.04877	-.03910	-.02879	-.01905	-.01067	-.00392
7.25	-.05632	-.05489	-.05070	-.04419	-.03609	-.02738	-.01898	-.01156	-.00540
7.50	-.05037	-.04916	-.04563	-.04016	-.03334	-.02593	-.01867	-.01209	-.00650
7.75	-.04522	-.04420	-.04122	-.03660	-.03082	-.02448	-.01818	-.01237	-.00730
8.00	-.04074	-.03987	-.03735	-.03343	-.02851	-.02308	-.01759	-.01244	-.00787
8.25	-.03683	-.03610	-.03395	-.03062	-.02641	-.02172	-.01693	-.01237	-.00824
8.50	-.03341	-.03278	-.03095	-.02810	-.02448	-.02042	-.01623	-.01218	-.00847
8.75	-.03040	-.02986	-.02830	-.02585	-.02273	-.01920	-.01552	-.01192	-.00857
9.00	-.02774	-.02728	-.02593	-.02382	-.02112	-.01804	-.01480	-.01160	-.00858
9.25	-.02538	-.02499	-.02382	-.02200	-.01965	-.01696	-.01410	-.01125	-.00852
9.50	-.02329	-.02294	-.02194	-.02035	-.01830	-.01594	-.01341	-.01087	-.00841
9.75	-.02142	-.02112	-.02025	-.01886	-.01707	-.01499	-.01275	-.01047	-.00825
10.00	-.01975	-.01949	-.01872	-.01751	-.01594	-.01410	-.01211	-.01007	-.00807
10.50	-.01689	-.01669	-.01611	-.01517	-.01395	-.01250	-.01092	-.00927	-.00763
11.00	-.01457	-.01441	-.01396	-.01322	-.01226	-.01111	-.00984	-.00851	-.00716
11.50	-.01266	-.01253	-.01217	-.01159	-.01082	-.00991	-.00888	-.00779	-.00667
12.00	-.01107	-.01097	-.01068	-.01022	-.00960	-.00886	-.00802	-.00712	-.00619
13.00	-.00861	-.00854	-.00836	-.00805	-.00764	-.00714	-.00658	-.00596	-.00531
14.00	-.00683	-.00679	-.00666	-.00645	-.00617	-.00583	-.00543	-.00500	-.00453
15.00	-.00551	-.00548	-.00540	-.00525	-.00505	-.00481	-.00453	-.00422	-.00388

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; \alpha, 1.5$									
.00	1.00000	.98746	.93860	.80755	.53044	.25231	.11790	.06223	.03675
.25	1.00065	.98838	.94073	.81224	.53047	.24769	.11586	.06146	.03643
.50	1.00256	.99110	.94697	.82677	.53055	.23334	.10990	.05923	.03549
.75	1.00560	.99540	.95681	.85215	.53069	.20827	.10050	.05570	.03400
1.00	1.00960	1.00096	.96937	.88815	.53489	.17269	.08854	.05116	.03204
1.25	.47236	.46545	.44149	.38851	.26012	.13089	.07520	.04596	.02973
1.50	-.06440	-.06959	-.08619	-.11300	-.01661	.09105	.06178	.04046	.02719
1.75	-.05896	-.06258	-.07283	-.08110	-.01028	.05984	.04936	.03497	.02454
2.00	-.05349	-.05577	-.06107	-.05897	-.00994	.03846	.03862	.02977	.02188
2.25	-.04818	-.04938	-.05117	-.04434	-.00958	.02464	.02979	.02502	.01931
2.50	-.04314	-.04355	-.04304	-.03462	-.00920	.01576	.02276	.02081	.01688
2.75	-.03846	-.03833	-.03645	-.02795	-.00881	.00995	.01726	.01716	.01465
3.00	-.03419	-.03371	-.03112	-.02320	-.00841	.00606	.01302	.01406	.01262
3.25	-.03035	-.02966	-.02679	-.01969	-.00801	.00341	.00975	.01145	.01081
3.50	-.02691	-.02614	-.02323	-.01700	-.00761	.00158	.00723	.00927	.00921
3.75	-.02387	-.02307	-.02029	-.01487	-.00721	.00029	.00528	.00746	.00780
4.00	-.02120	-.02041	-.01784	-.01315	-.00683	-.00061	.00377	.00597	.00659
4.25	-.01884	-.01811	-.01577	-.01173	-.00645	-.00125	.00260	.00474	.00553
4.50	-.01678	-.01610	-.01402	-.01053	-.00609	-.00169	.00169	.00372	.00462
Nondimensional coil parameters: $\beta, 3; \alpha, 2$									
.00	1.00000	.98462	.92805	.79336	.54266	.29049	.15103	.08495	.05199
.25	1.00081	.98570	.93014	.79707	.54269	.28687	.14906	.08408	.05159
.50	1.00319	.98887	.93634	.80858	.54281	.27563	.14325	.08154	.05043
.75	1.00702	.99396	.94634	.82889	.54300	.25575	.13386	.07748	.04855
1.00	1.01211	1.00069	.95959	.85872	.54534	.22652	.12145	.07215	.04607
1.25	.73829	.72874	.69530	.61689	.40364	.18917	.10685	.06585	.04309
1.50	.46521	.45764	.43228	.37933	.26407	.14768	.09114	.05896	.03975
1.75	.19258	.18694	.16935	.14058	.12455	.10749	.07549	.05185	.03621
2.00	-.07988	-.08375	-.09455	-.10428	-.01908	.07351	.06092	.04486	.03259
2.25	-.07247	-.07484	-.08022	-.07780	-.01441	.04819	.04811	.03825	.02901
2.50	-.06532	-.06649	-.06791	-.05933	-.01385	.03093	.03737	.03221	.02558
2.75	-.05857	-.05884	-.05762	-.04673	-.01328	.01958	.02868	.02684	.02235
3.00	-.05232	-.05196	-.04915	-.03799	-.01269	.01211	.02179	.02217	.01939
3.25	-.04661	-.04585	-.04221	-.03172	-.01210	.00712	.01641	.01818	.01670
3.50	-.04146	-.04048	-.03651	-.02706	-.01151	.00372	.01224	.01480	.01430
3.75	-.03686	-.03577	-.03181	-.02347	-.01093	.00137	.00901	.01197	.01217
4.00	-.03278	-.03167	-.02790	-.02062	-.01035	-.00027	.00650	.00962	.01031
4.25	-.02917	-.02810	-.02461	-.01829	-.00979	-.00142	.00456	.00767	.00869
4.50	-.02599	-.02499	-.02182	-.01636	-.00925	-.00222	.00304	.00605	.00728
4.75	-.02320	-.02228	-.01945	-.01473	-.00873	-.00277	.00187	.00472	.00607
5.00	-.02074	-.01991	-.01740	-.01333	-.00823	-.00314	.00095	.00362	.00503
5.25	-.01859	-.01785	-.01564	-.01211	-.00775	-.00338	.00024	.00272	.00413
5.50	-.01670	-.01604	-.01410	-.01104	-.00729	-.00351	-.00032	.00198	.00337
5.75	-.01504	-.01445	-.01275	-.01010	-.00686	-.00358	-.00074	.00136	.00272
6.00	-.01357	-.01306	-.01157	-.00926	-.00646	-.00359	-.00107	.00086	.00216

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; \alpha, 3$									
.00	1.00000	.98123	.91738	.78528	.56923	.35072	.21076	.13172	.08645
.25	1.00101	.98244	.91925	.78792	.56929	.34823	.20908	.13082	.08596
.50	1.00399	.98604	.92484	.79611	.56949	.34048	.20409	.12813	.08452
.75	1.00886	.99190	.93403	.81055	.56982	.32677	.19586	.12376	.08216
1.00	1.01545	.99983	.94658	.83194	.57138	.30638	.18463	.11784	.07898
1.25	.87311	.85913	.81166	.70965	.49561	.27947	.17076	.11060	.07506
1.50	.73203	.71992	.67914	.59276	.42106	.24739	.15478	.10230	.07055
1.75	.59191	.58181	.54831	.47931	.34660	.21209	.13737	.09323	.06558
2.00	.45245	.44440	.41837	.36739	.27223	.17542	.11926	.08372	.06031
2.25	.31335	.30729	.28853	.25526	.19792	.13911	.10122	.07410	.05488
2.50	.17431	.17011	.15802	.14116	.12368	.10488	.08397	.06467	.04943
2.75	.03507	.03250	.02617	.02318	.04946	.07461	.06812	.05569	.04410
3.00	- .10454	- .10575	- .10746	- .10037	- .02804	.04999	.05412	.04736	.03899
3.25	- .09435	- .09448	- .09278	- .07986	- .02365	.03174	.04219	.03981	.03419
3.50	- .08477	- .08411	- .08013	- .06488	- .02255	.01910	.03234	.03311	.02974
3.75	- .07600	- .07480	- .06948	- .05409	- .02148	.01059	.02440	.02728	.02568
4.00	- .06801	- .06649	- .06055	- .04612	- .02041	.00487	.01810	.02227	.02203
4.25	- .06081	- .05913	- .05307	- .04003	- .01937	.00098	.01314	.01801	.01878
4.50	- .05437	- .05265	- .04678	- .03523	- .01834	- .00169	.00927	.01443	.01591
4.75	- .04863	- .04695	- .04145	- .03133	- .01735	- .00352	.00625	.01143	.01339
5.00	- .04354	- .04195	- .03692	- .02810	- .01640	- .00477	.00389	.00894	.01120
5.25	- .03904	- .03757	- .03303	- .02536	- .01548	- .00561	.00206	.00687	.00929
5.50	- .03506	- .03372	- .02967	- .02301	- .01460	- .00616	.00064	.00516	.00765
5.75	- .03154	- .03034	- .02675	- .02096	- .01376	- .00649	- .00046	.00374	.00624
6.00	- .02844	- .02737	- .02419	- .01916	- .01296	- .00667	- .00131	.00258	.00503
6.25	- .02570	- .02475	- .02195	- .01757	- .01221	- .00673	- .00196	.00162	.00399
6.50	- .02327	- .02243	- .01997	- .01616	- .01149	- .00670	- .00246	.00084	.00311
6.75	- .02112	- .02038	- .01822	- .01489	- .01082	- .00661	- .00282	.00020	.00235
7.00	- .01922	- .01856	- .01667	- .01375	- .01019	- .00648	- .00309	- .00033	.00171
7.25	- .01752	- .01694	- .01528	- .01272	- .00959	- .00631	- .00328	- .00075	.00117
7.50	- .01601	- .01550	- .01403	- .01178	- .00903	- .00613	- .00340	- .00109	.00071
7.75	- .01466	- .01421	- .01292	- .01094	- .00851	- .00593	- .00348	- .00136	.00032
8.00	- .01345	- .01306	- .01191	- .01016	- .00801	- .00572	- .00351	- .00158	- .00001
8.25	- .01237	- .01202	- .01101	- .00946	- .00755	- .00550	- .00351	- .00174	- .00029
8.50	- .01139	- .01108	- .01019	- .00882	- .00712	- .00529	- .00349	- .00187	- .00052
8.75	- .01052	- .01024	- .00945	- .00823	- .00672	- .00507	- .00345	- .00197	- .00071
9.00	- .00972	- .00948	- .00878	- .00769	- .00634	- .00486	- .00339	- .00203	- .00086

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; \alpha, 4$									
.00	1.00000	.98010	.91509	.78944	.59552	.39818	.26167	.17634	.12262
.25	1.00108	.98132	.91676	.79157	.59561	.39625	.26025	.17548	.12211
.50	1.00429	.98497	.92177	.79814	.59589	.39028	.25601	.17292	.12057
.75	1.00957	.99097	.93005	.80970	.59635	.37973	.24900	.16872	.11805
1.00	1.01680	.99918	.94147	.82679	.59779	.36403	.23932	.16298	.11461
1.25	.91775	.90136	.84773	.74128	.54376	.34321	.22719	.15583	.11032
1.50	.82030	.80535	.75654	.66038	.49068	.31812	.21293	.14744	.10527
1.75	.72420	.71086	.66747	.58283	.43775	.28999	.19691	.13802	.09959
2.00	.62922	.61761	.58005	.50754	.38495	.25986	.17956	.12779	.09339
2.25	.53508	.52527	.49377	.43366	.33225	.22857	.16135	.11699	.08681
2.50	.44149	.43351	.40815	.36050	.27966	.19676	.14270	.10587	.07998
2.75	.34819	.34200	.32270	.28744	.22714	.16500	.12405	.09467	.07305
3.00	.25491	.25042	.23692	.21384	.17469	.13391	.10585	.08364	.06613
3.25	.16141	.15849	.15035	.13895	.12228	.10420	.08851	.07299	.05934
3.50	.06746	.06593	.06253	.06180	.06990	.07679	.07243	.06291	.05280
3.75	-.02722	-.02756	-.02701	-.01886	-.01748	.05281	.05796	.05356	.04659
4.00	-.12245	-.12186	-.11825	-.10386	-.03803	.03338	.04533	.04506	.04078
4.25	-.11076	-.10945	-.10371	-.08609	-.03326	.01892	.03464	.03746	.03541
4.50	-.09968	-.09788	-.09085	-.07246	-.03155	.00886	.02582	.03078	.03052
4.75	-.08970	-.08761	-.07998	-.06232	-.02995	.00206	.01870	.02499	.02611
5.00	-.08066	-.07844	-.07072	-.05451	-.02839	-.00252	.01303	.02003	.02217
5.25	-.07253	-.07029	-.06282	-.04832	-.02688	-.00559	.00857	.01583	.01868
5.50	-.06524	-.06307	-.05607	-.04326	-.02543	-.00765	.00508	.01230	.01561
5.75	-.05874	-.05670	-.05026	-.03902	-.02403	-.00902	.00236	.00934	.01293
6.00	-.05296	-.05106	-.04524	-.03542	-.02269	-.00989	.00025	.00689	.01060
6.25	-.04781	-.04609	-.04087	-.03229	-.02141	-.01041	-.00139	.00485	.00859
6.50	-.04325	-.04169	-.03704	-.02956	-.02020	-.01067	-.00264	.00317	.00685
6.75	-.03919	-.03780	-.03368	-.02714	-.01905	-.01076	-.00359	.00178	.00536
7.00	-.03559	-.03435	-.03071	-.02499	-.01796	-.01071	-.00431	.00065	.00409
7.25	-.03238	-.03128	-.02807	-.02307	-.01693	-.01056	-.00484	-.00028	.00300
7.50	-.02953	-.02856	-.02572	-.02133	-.01596	-.01034	-.00522	-.00103	.00207
7.75	-.02698	-.02612	-.02362	-.01977	-.01504	-.01008	-.00548	-.00164	.00128
8.00	-.02471	-.02395	-.02174	-.01835	-.01418	-.00978	-.00565	-.00213	.00062
8.25	-.02267	-.02200	-.02005	-.01706	-.01338	-.00946	-.00574	-.00252	.00006
8.50	-.02085	-.02025	-.01853	-.01588	-.01262	-.00913	-.00577	-.00282	-.00042
8.75	-.01920	-.01868	-.01715	-.01481	-.01191	-.00879	-.00576	-.00305	-.00081
9.00	-.01772	-.01726	-.01590	-.01382	-.01124	-.00845	-.00571	-.00323	-.00114
9.25	-.01639	-.01597	-.01477	-.01292	-.01062	-.00811	-.00563	-.00336	-.00141
9.50	-.01518	-.01481	-.01374	-.01209	-.01003	-.00778	-.00553	-.00344	-.00164
9.75	-.01409	-.01376	-.01281	-.01133	-.00949	-.00745	-.00541	-.00350	-.00182
10.00	-.01309	-.01280	-.01195	-.01063	-.00897	-.00714	-.00528	-.00352	-.00196
10.50	-.01137	-.01113	-.01045	-.00939	-.00804	-.00654	-.00499	-.00351	-.00216
11.00	-.00992	-.00973	-.00912	-.00832	-.00723	-.00599	-.00470	-.00344	-.00227
11.50	-.00871	-.00856	-.00817	-.00741	-.00651	-.00548	-.00440	-.00333	-.00232
12.00	-.00769	-.00757	-.00800	-.00662	-.00587	-.00502	-.00410	-.00319	-.00232

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, 5$									
.00	1.00000	.98011	.91647	.79769	.61963	.43731	.30514	.21704	.15791
.25	1.00109	.98130	.91800	.79952	.61975	.43573	.30391	.21625	.15740
.50	1.00433	.98486	.92257	.80518	.62010	.43081	.30025	.21390	.15588
.75	1.00966	.99074	.93014	.81511	.62068	.42212	.29417	.21001	.15338
1.00	1.01702	.99883	.94062	.82974	.62212	.40920	.28576	.20467	.14994
1.25	.93913	.92187	.86669	.76193	.57892	.39204	.27517	.19797	.14562
1.50	.86298	.84681	.79523	.69812	.53657	.37131	.26261	.19002	.14049
1.75	.78840	.77346	.72593	.63734	.49440	.34795	.24837	.18098	.13463
2.00	.71520	.70159	.65845	.57875	.45241	.32276	.23273	.17101	.12814
2.25	.64316	.63097	.59245	.52173	.41057	.29633	.21601	.16026	.12113
2.50	.57205	.56134	.52757	.46583	.36888	.26907	.19849	.14893	.11369
2.75	.50166	.49245	.46350	.41069	.32730	.24131	.18043	.13718	.10595
3.00	.43174	.42404	.39994	.35600	.28582	.21329	.16210	.12519	.09801
3.25	.36206	.35587	.33657	.30149	.24443	.18527	.14373	.11314	.08998
3.50	.29240	.28767	.27309	.24686	.20310	.15748	.12558	.10120	.08198
3.75	.22255	.21921	.20919	.19179	.16181	.13022	.10792	.08954	.07411
4.00	.15229	.15026	.14455	.13587	.12055	.10385	.09101	.07832	.06646
4.25	.08146	.08061	.07885	.07857	.07929	.07886	.07513	.06768	.05912
4.50	.00990	.01007	.01176	.01917	.03803	.05594	.06056	.05776	.05216
4.75	- .06279	- .06176	- .05725	- .04349	- .00339	.03596	.04753	.04865	.04565
5.00	- .13589	- .13420	- .12756	- .10951	- .04780	.01979	.03620	.04043	.03961
5.25	- .12350	- .12133	- .11330	- .09330	- .04255	.00779	.02663	.03312	.03409
5.50	- .11143	- .10896	- .10020	- .08019	- .04023	- .00055	.01875	.02672	.02908
5.75	- .10073	- .09812	- .08916	- .07030	- .03814	- .00613	.01238	.02119	.02459
6.00	- .09105	- .08841	- .07966	- .06248	- .03613	- .00983	.00733	.01646	.02059
6.25	- .08232	- .07975	- .07146	- .05611	- .03420	- .01224	.00336	.01246	.01707
6.50	- .07448	- .07204	- .06436	- .05079	- .03234	- .01378	.00026	.00909	.01397
6.75	- .06746	- .06519	- .05818	- .04625	- .03057	- .01471	- .00213	.00629	.01128
7.00	- .06119	- .05911	- .05278	- .04231	- .02888	- .01522	- .00397	.00396	.00894
7.25	- .05559	- .05370	- .04804	- .03886	- .02728	- .01543	- .00537	.00203	.00692
7.50	- .05059	- .04889	- .04385	- .03580	- .02576	- .01542	- .00641	.00045	.00519
7.75	- .04612	- .04460	- .04013	- .03307	- .02432	- .01525	- .00718	- .00084	.00370
8.00	- .04213	- .04078	- .03681	- .03061	- .02295	- .01497	- .00774	- .00189	.00243
8.25	- .03857	- .03736	- .03385	- .02839	- .02167	- .01461	- .00812	- .00274	.00135
8.50	- .03537	- .03430	- .03119	- .02638	- .02046	- .01420	- .00836	- .00341	.00044
8.75	- .03250	- .03155	- .02881	- .02456	- .01932	- .01376	- .00849	- .00395	- .00033
9.00	- .02993	- .02908	- .02665	- .02289	- .01825	- .01329	- .00853	- .00437	- .00098
9.25	- .02761	- .02686	- .02470	- .02137	- .01725	- .01281	- .00851	- .00469	- .00152
9.50	- .02551	- .02485	- .02293	- .01997	- .01630	- .01233	- .00843	- .00493	- .00197
9.75	- .02362	- .02303	- .02133	- .01869	- .01541	- .01184	- .00832	- .00510	- .00234
10.00	- .02191	- .02138	- .01986	- .01751	- .01458	- .01137	- .00817	- .00521	- .00264
10.50	- .01894	- .01852	- .01731	- .01543	- .01307	- .01045	- .00780	- .00530	- .00308
11.00	- .01648	- .01614	- .01517	- .01365	- .01174	- .00959	- .00739	- .00527	- .00335
11.50	- .01442	- .01415	- .01336	- .01213	- .01057	- .00879	- .00695	- .00515	- .00349
12.00	- .01269	- .01247	- .01183	- .01082	- .00953	- .00806	- .00651	- .00498	- .00354
13.00	- .00997	- .00982	- .00939	- .00870	- .00781	- .00678	- .00567	- .00455	- .00347
14.00	- .00798	- .00787	- .00757	- .00709	- .00646	- .00572	- .00492	- .00409	- .00326
15.00	- .00648	- .00641	- .00619	- .00585	- .00539	- .00485	- .00426	- .00364	- .00301

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of-									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, 5; \alpha, 1.5$										
.00	1.00000	.99430	.96933	.87546	.51152	.14721	.05208	.02454	.01377	
.25	1.00010	.99446	.96989	.87815	.51153	.14452	.05154	.02440	.01370	
.50	1.00041	.99496	.97151	.88610	.51154	.13660	.04996	.02397	.01355	
.75	1.00092	.99577	.97409	.89879	.51156	.12395	.04744	.02328	.01330	
1.00	1.00160	.99685	.97743	.91512	.51540	.10769	.04419	.02236	.01296	
1.25	.48689	.48260	.46576	.41776	.25384	.08956	.04042	.02124	.01255	
1.50	-.02768	-.03146	-.04561	-.07979	-.00963	.07165	.03636	.01999	.01206	
1.75	-.02659	-.02984	-.04134	-.06370	-.00386	.05566	.03224	.01864	.01153	
2.00	-.02541	-.02814	-.03717	-.05041	-.00381	.04248	.02824	.01723	.01095	
2.25	-.02417	-.02640	-.03324	-.03998	-.00375	.03219	.02449	.01581	.01034	
2.50	-.02289	-.02467	-.02962	-.03203	-.00369	.02438	.02107	.01441	.00971	
2.75	-.02160	-.02297	-.02637	-.02603	-.00362	.01852	.01803	.01306	.00908	
3.00	-.02032	-.02133	-.02348	-.02150	-.00356	.01415	.01536	.01177	.00846	
3.25	-.01906	-.01976	-.02094	-.01804	-.00348	.01085	.01304	.01057	.00785	
3.50	-.01784	-.01828	-.01872	-.01536	-.00340	.00834	.01106	.00946	.00725	
3.75	-.01665	-.01690	-.01679	-.01326	-.00333	.00642	.00936	.00843	.00668	
4.00	-.01553	-.01561	-.01510	-.01159	-.00324	.00493	.00791	.00750	.00613	
4.25	-.01446	-.01441	-.01364	-.01024	-.00316	.00377	.00668	.00666	.00562	
4.50	-.01345	-.01331	-.01235	-.00914	-.00308	.00285	.00564	.00590	.00514	
Nondimensional coil parameters: $\beta, 5; \alpha, 2$										
.00	1.00000	.99226	.95981	.85215	.51664	.18058	.07110	.03492	.01993	
.25	1.00014	.99249	.96045	.85454	.51664	.17819	.07048	.03473	.01986	
.50	1.00057	.99314	.96234	.86169	.51666	.17108	.06864	.03417	.01965	
.75	1.00126	.99420	.96537	.87338	.51668	.15945	.06570	.03327	.01931	
1.00	1.00220	.99563	.96937	.88908	.51866	.14384	.06182	.03207	.01885	
1.25	.74206	.73608	.71282	.64645	.38611	.12527	.05722	.03060	.01827	
1.50	.48211	.47678	.45678	.40527	.25552	.10527	.05214	.02892	.01761	
1.75	.22233	.21767	.20100	.16384	.12493	.08554	.04683	.02710	.01686	
2.00	-.03733	-.04129	-.05476	-.07935	-.00952	.06760	.04153	.02518	.01605	
2.25	-.03559	-.03888	-.04938	-.06393	-.00557	.05236	.03642	.02322	.01519	
2.50	-.03378	-.03645	-.04431	-.05148	-.00548	.04011	.03164	.02126	.01431	
2.75	-.03195	-.03404	-.03965	-.04175	-.00538	.03060	.02728	.01936	.01341	
3.00	-.03011	-.03169	-.03544	-.03428	-.00528	.02336	.02339	.01752	.01252	
3.25	-.02830	-.02943	-.03169	-.02855	-.00517	.01787	.01996	.01579	.01164	
3.50	-.02652	-.02729	-.02837	-.02414	-.00506	.01371	.01698	.01417	.01078	
3.75	-.02481	-.02526	-.02546	-.02070	-.00495	.01053	.01442	.01268	.00995	
4.00	-.02316	-.02337	-.02291	-.01798	-.00483	.00808	.01221	.01130	.00915	
4.25	-.02159	-.02160	-.02068	-.01581	-.00470	.00617	.01033	.01005	.00840	
4.50	-.02011	-.01997	-.01873	-.01404	-.00458	.00467	.00873	.00892	.00769	
4.75	-.01871	-.01846	-.01701	-.01258	-.00445	.00349	.00736	.00790	.00702	
5.00	-.01740	-.01706	-.01551	-.01136	-.00433	.00254	.00620	.00698	.00640	
5.25	-.01617	-.01579	-.01418	-.01033	-.00420	.00179	.00521	.00616	.00582	
5.50	-.01503	-.01461	-.01300	-.00945	-.00407	.00118	.00436	.00543	.00529	
5.75	-.01397	-.01354	-.01195	-.00869	-.00395	.00068	.00363	.00477	.00479	
6.00	-.01299	-.01255	-.01101	-.00803	-.00383	.00028	.00301	.00419	.00434	

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5, \alpha, 3$									
.00	1.00000	.98843	.94372	.82193	.52910	.23529	.11027	.05906	.03524
.25	1.00021	.98874	.94443	.82378	.52911	.23346	.10960	.05880	.03513
.50	1.00086	.98965	.94652	.82933	.52914	.22797	.10760	.05805	.03481
.75	1.00192	.99114	.94993	.83857	.52919	.21885	.10435	.05683	.03429
1.00	1.00337	.99317	.95454	.85134	.53025	.20623	.09995	.05517	.03358
1.25	.87010	.86061	.82511	.73219	.46179	.19048	.09456	.05312	.03269
1.50	.73715	.72847	.69655	.61559	.39435	.17223	.08837	.05073	.03165
1.75	.60448	.59668	.56862	.50073	.32693	.15227	.08159	.04807	.03047
2.00	.47204	.46517	.44112	.38670	.25952	.13151	.07443	.04521	.02917
2.25	.33979	.33385	.31379	.27259	.19212	.11088	.06714	.04221	.02779
2.50	.20767	.20266	.18644	.15749	.12474	.09125	.05991	.03914	.02634
2.75	.07563	.07150	.05885	.04061	.05737	.07341	.05294	.03606	.02485
3.00	-.05633	-.05964	-.06908	-.07856	-.01298	.05794	.04636	.03302	.02334
3.25	-.05326	-.05581	-.06246	-.06531	-.00981	.04508	.04030	.03008	.02183
3.50	-.05014	-.05203	-.05632	-.05450	-.00958	.03477	.03479	.02726	.02034
3.75	-.04712	-.04843	-.05079	-.04595	-.00937	.02668	.02988	.02460	.01888
4.00	-.04419	-.04500	-.04582	-.03921	-.00915	.02042	.02555	.02211	.01747
4.25	-.04136	-.04176	-.04141	-.03388	-.00893	.01558	.02177	.01980	.01611
4.50	-.03865	-.03873	-.03749	-.02963	-.00870	.01183	.01849	.01768	.01482
4.75	-.03608	-.03589	-.03403	-.02620	-.00847	.00891	.01566	.01574	.01359
5.00	-.03364	-.03326	-.03097	-.02340	-.00824	.00661	.01323	.01398	.01243
5.25	-.03135	-.03082	-.02827	-.02107	-.00800	.00479	.01115	.01239	.01135
5.50	-.02920	-.02856	-.02587	-.01912	-.00777	.00334	.00937	.01095	.01034
5.75	-.02719	-.02648	-.02374	-.01746	-.00753	.00218	.00784	.00966	.00940
6.00	-.02531	-.02457	-.02184	-.01604	-.00730	.00125	.00653	.00850	.00853
6.25	-.02357	-.02281	-.02014	-.01480	-.00707	.00050	.00540	.00747	.00773
6.50	-.02195	-.02119	-.01862	-.01371	-.00685	-.00011	.00444	.00654	.00699
6.75	-.02045	-.01970	-.01725	-.01274	-.00662	-.00061	.00361	.00572	.00631
7.00	-.01906	-.01834	-.01601	-.01189	-.00640	-.00100	.00290	.00498	.00569
7.25	-.01777	-.01708	-.01490	-.01111	-.00619	-.00133	.00229	.00433	.00512
7.50	-.01658	-.01592	-.01388	-.01042	-.00598	-.00158	.00177	.00375	.00460
7.75	-.01548	-.01486	-.01295	-.00978	-.00577	-.00179	.00131	.00323	.00412
8.00	-.01447	-.01388	-.01211	-.00921	-.00557	-.00195	.00092	.00276	.00368
8.25	-.01353	-.01298	-.01133	-.00868	-.00537	-.00208	.00059	.00235	.00329
8.50	-.01266	-.01215	-.01062	-.00819	-.00518	-.00217	.00030	.00198	.00292
8.75	-.01186	-.01138	-.00997	-.00774	-.00500	-.00224	.00005	.00166	.00259
9.00	-.01112	-.01068	-.00937	-.00732	-.00482	-.00229	-.00016	.00137	.00229

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 4$									
.00	1.00000	.98550	.93290	.80687	.54347	.27857	.14765	.08540	.05336
.25	1.00027	.98586	.93359	.80836	.54348	.27711	.14700	.08511	.05322
.50	1.00110	.98693	.93566	.81284	.54353	.27273	.14508	.08427	.05282
.75	1.00246	.98870	.93904	.82031	.54360	.26542	.14192	.08287	.05215
1.00	1.00432	.99113	.94368	.83073	.54440	.25524	.13760	.08096	.05124
1.25	.91303	.90054	.85583	.75024	.49701	.24237	.13221	.07857	.05010
1.50	.82219	.81050	.76900	.67215	.45035	.22718	.12589	.07575	.04874
1.75	.73174	.72096	.68304	.59600	.40371	.21010	.11878	.07256	.04719
2.00	.64163	.63184	.59777	.52130	.35710	.19162	.11103	.06906	.04547
2.25	.55182	.54306	.51303	.44757	.31051	.17223	.10283	.06530	.04361
2.50	.46225	.45454	.42863	.37434	.26394	.15239	.09435	.06137	.04163
2.75	.37287	.36621	.34438	.30115	.21740	.13254	.08577	.05732	.03957
3.00	.28361	.27798	.26011	.22755	.17087	.11314	.07726	.05323	.03745
3.25	.19443	.18978	.17565	.15307	.12435	.09466	.06898	.04915	.03530
3.50	.10527	.10155	.09086	.07725	.07785	.07755	.06106	.04514	.03314
3.75	.01600	.01314	.00553	- .00044	.03132	.06224	.05362	.04125	.03100
4.00	- .07315	- .07525	- .08017	- .08003	- .01788	.04904	.04674	.03751	.02889
4.25	- .06899	- .07041	- .07305	- .06842	- .01482	.03806	.04047	.03396	.02683
4.50	- .06468	- .06552	- .06629	- .05863	- .01439	.02919	.03484	.03062	.02484
4.75	- .06065	- .06100	- .06029	- .05082	- .01403	.02217	.02984	.02750	.02292
5.00	- .05680	- .05675	- .05489	- .04452	- .01366	.01667	.02544	.02462	.02110
5.25	- .05313	- .05275	- .05006	- .03941	- .01328	.01237	.02160	.02196	.01937
5.50	- .04965	- .04902	- .04575	- .03523	- .01291	.00899	.01826	.01954	.01773
5.75	- .04636	- .04555	- .04190	- .03177	- .01253	.00633	.01537	.01733	.01620
6.00	- .04327	- .04232	- .03846	- .02886	- .01216	.00422	.01288	.01533	.01477
6.25	- .04037	- .03934	- .03539	- .02639	- .01179	.00253	.01074	.01353	.01343
6.50	- .03766	- .03658	- .03264	- .02427	- .01142	.00119	.00890	.01191	.01219
6.75	- .03514	- .03403	- .03018	- .02243	- .01106	.00011	.00732	.01045	.01104
7.00	- .03278	- .03168	- .02796	- .02081	- .01070	- .00076	.00595	.00914	.00998
7.25	- .03060	- .02952	- .02595	- .01937	- .01035	- .00146	.00478	.00797	.00901
7.50	- .02857	- .02752	- .02414	- .01810	- .01001	- .00202	.00377	.00693	.00811
7.75	- .02669	- .02568	- .02249	- .01694	- .00967	- .00247	.00291	.00600	.00729
8.00	- .02495	- .02398	- .02099	- .01590	- .00934	- .00283	.00216	.00516	.00654
8.25	- .02333	- .02242	- .01962	- .01496	- .00902	- .00311	.00152	.00442	.00585
8.50	- .02184	- .02098	- .01837	- .01409	- .00871	- .00333	.00097	.00376	.00522
8.75	- .02045	- .01965	- .01722	- .01330	- .00840	- .00350	.00049	.00317	.00465
9.00	- .01917	- .01842	- .01617	- .01257	- .00810	- .00362	.00009	.00265	.00412
9.25	- .01798	- .01728	- .01520	- .01189	- .00782	- .00371	- .00026	.00218	.00364
9.50	- .01688	- .01623	- .01430	- .01126	- .00754	- .00377	- .00056	.00176	.00321
9.75	- .01586	- .01526	- .01347	- .01068	- .00727	- .00380	- .00082	.00139	.00281
10.00	- .01492	- .01435	- .01270	- .01014	- .00701	- .00382	- .00104	.00107	.00245
10.50	- .01323	- .01274	- .01133	- .00916	- .00651	- .00380	- .00138	.00052	.00183
11.00	- .01177	- .01135	- .01015	- .00830	- .00605	- .00373	- .00162	.00008	.00131
11.50	- .01050	- .01015	- .00912	- .00754	- .00563	- .00362	- .00178	- .00025	.00089
12.00	- .00940	- .00910	- .00822	- .00687	- .00523	- .00350	- .00188	- .00051	.00054

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5, \alpha, 5$									
.00	1.00000	.98357	.92657	.80070	.55864	.31453	.18200	.11213	.07311
.25	1.00032	.98396	.92723	.80195	.55866	.31332	.18141	.11183	.07295
.50	1.00126	.98512	.92919	.80574	.55873	.30967	.17962	.11095	.07249
.75	1.00282	.98704	.93243	.81206	.55883	.30357	.17668	.10950	.07174
1.00	1.00498	.98969	.93689	.82089	.55951	.29505	.17264	.10750	.07069
1.25	.93447	.91979	.86926	.75884	.52252	.28426	.16756	.10498	.06937
1.50	.86448	.85054	.80269	.69891	.48612	.27142	.16153	.10197	.06779
1.75	.79500	.78188	.73706	.64078	.44975	.25687	.15466	.09853	.06598
2.00	.72596	.71374	.67226	.58410	.41342	.24094	.14706	.09471	.06395
2.25	.65731	.64607	.60816	.52856	.37711	.22395	.13885	.09055	.06173
2.50	.58901	.57880	.54461	.47385	.34084	.20619	.13017	.08612	.05934
2.75	.52099	.51183	.48149	.41972	.30460	.18790	.12114	.08147	.05683
3.00	.45320	.44511	.41865	.36593	.26838	.16934	.11190	.07668	.05420
3.25	.38558	.37856	.35596	.31224	.23219	.15073	.10257	.07179	.05150
3.50	.31808	.31210	.29327	.25842	.19602	.13230	.09329	.06686	.04875
3.75	.25063	.24566	.23045	.20420	.15987	.11430	.08418	.06196	.04597
4.00	.18320	.17918	.16738	.14931	.12374	.09701	.07536	.05714	.04320
4.25	.11572	.11260	.10395	.09345	.08762	.08072	.06692	.05243	.04045
4.50	.04816	.04585	.04005	.03629	.05151	.06576	.05897	.04789	.03775
4.75	- .01974	- .02132	- .02461	- .02270	- .01530	- .05241	- .05158	- .04355	- .03512
5.00	- .08735	- .08828	- .08943	- .08306	- .02338	- .04091	- .04479	- .03943	- .03257
5.25	- .08243	- .08280	- .08216	- .07262	- .02028	- .03131	- .03864	- .03555	- .03011
5.50	- .07711	- .07701	- .07495	- .06338	- .01960	- .02353	- .03312	- .03194	- .02776
5.75	- .07231	- .07182	- .06865	- .05601	- .01905	- .01733	- .02823	- .02858	- .02552
6.00	- .06774	- .06694	- .06297	- .04996	- .01851	- .01243	- .02392	- .02549	- .02340
6.25	- .06341	- .06238	- .05785	- .04496	- .01797	- .00858	- .02015	- .02266	- .02141
6.50	- .05932	- .05812	- .05324	- .04079	- .01743	- .00554	- .01687	- .02008	- .01953
6.75	- .05548	- .05415	- .04909	- .03726	- .01689	- .00314	- .01403	- .01773	- .01778
7.00	- .05187	- .05047	- .04537	- .03424	- .01637	- .00123	- .01157	- .01561	- .01615
7.25	- .04849	- .04705	- .04201	- .03163	- .01585	- .00029	- .00945	- .01369	- .01464
7.50	- .04534	- .04389	- .03898	- .02935	- .01534	- .00151	- .00762	- .01197	- .01324
7.75	- .04240	- .04097	- .03623	- .02734	- .01484	- .00248	- .00605	- .01042	- .01194
8.00	- .03966	- .03826	- .03375	- .02554	- .01434	- .00325	- .00470	- .00903	- .01075
8.25	- .03711	- .03577	- .03148	- .02393	- .01386	- .00387	- .00353	- .00779	- .00966
8.50	- .03475	- .03346	- .02942	- .02248	- .01339	- .00435	- .00253	- .00668	- .00865
8.75	- .03255	- .03132	- .02754	- .02115	- .01294	- .00473	- .00166	- .00568	- .00773
9.00	- .03051	- .02935	- .02581	- .01994	- .01249	- .00503	- .00092	- .00480	- .00688
9.25	- .02862	- .02752	- .02422	- .01883	- .01206	- .00525	- .00028	- .00401	- .00611
9.50	- .02686	- .02584	- .02276	- .01781	- .01163	- .00541	- .00026	- .00331	- .00541
9.75	- .02523	- .02427	- .02142	- .01687	- .01123	- .00552	- .00073	- .00268	- .00476
10.00	- .02372	- .02282	- .02018	- .01599	- .01083	- .00559	- .00113	- .00212	- .00418
10.50	- .02101	- .02023	- .01797	- .01442	- .01008	- .00564	- .00176	- .00119	- .00316
11.00	- .01867	- .01800	- .01606	- .01305	- .00937	- .00559	- .00221	- .00045	- .00231
11.50	- .01664	- .01607	- .01441	- .01184	- .00872	- .00547	- .00252	- .00013	- .00162
12.00	- .01489	- .01439	- .01297	- .01078	- .00811	- .00531	- .00273	- .00058	- .00105
13.00	- .01202	- .01166	- .01061	- .00900	- .00702	- .00492	- .00292	- .00119	- .00020
14.00	- .00982	- .00955	- .00877	- .00757	- .00609	- .00449	- .00293	- .00153	- .00037
15.00	- .00812	- .00791	- .00732	- .00642	- .00530	- .00407	- .00284	- .00170	- .00073

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of-									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, I_0; \alpha, 1.5$										
.00	1.00000	.99841	.99094	.95314	.50295	.05266	.01459	.00642	.00353	
.25	1.00001	.99843	.99097	.95368	.50295	.05212	.01451	.00640	.00350	
.50	1.00004	.99847	.99113	.95524	.50295	.05057	.01437	.00637	.00349	
.75	1.00007	.99853	.99137	.95770	.50295	.04811	.01412	.00632	.00347	
1.00	1.00012	.99861	.99171	.96089	.50669	.04492	.01379	.00624	.00344	
1.25	.49624	.49478	.48819	.46065	.25098	.04122	.01338	.00615	.00341	
1.50	-.00763	-.00904	-.01526	-.03931	-.00659	.03724	.01290	.00604	.00337	
1.75	-.00754	-.00889	-.01472	-.03526	-.00098	.03320	.01236	.00590	.00333	
2.00	-.00744	-.00873	-.01414	-.03132	-.00098	.02927	.01179	.00576	.00328	
2.25	-.00733	-.00855	-.01352	-.02762	-.00098	.02558	.01118	.00561	.00323	
2.50	-.00721	-.00836	-.01288	-.02425	-.00097	.02221	.01056	.00544	.00317	
2.75	-.00708	-.00815	-.01224	-.02123	-.00097	.01922	.00993	.00527	.00311	
3.00	-.00695	-.00794	-.01160	-.01859	-.00096	.01658	.00931	.00509	.00304	
3.25	-.00680	-.00772	-.01096	-.01629	-.00096	.01429	.00870	.00491	.00297	
3.50	-.00666	-.00749	-.01035	-.01430	-.00095	.01232	.00810	.00471	.00289	
3.75	-.00650	-.00726	-.00975	-.01259	-.00094	.01062	.00753	.00452	.00282	
4.00	-.00634	-.00703	-.00918	-.01113	-.00094	.00918	.00698	.00432	.00274	
4.25	-.00618	-.00680	-.00864	-.00988	-.00093	.00795	.00646	.00413	.00266	
4.50	-.00601	-.00656	-.00812	-.00881	-.00093	.00689	.00596	.00394	.00258	
Nondimensional coil parameters: $\beta, I_0; \alpha, 2$										
.00	1.00000	.99770	.98708	.93712	.50432	.07137	.02096	.00936	.00514	
.25	1.00001	.99772	.98715	.93772	.50432	.07077	.02088	.00934	.00513	
.50	1.00004	.99778	.98736	.93951	.50432	.06899	.02067	.00929	.00511	
.75	1.00009	.99787	.98770	.94237	.50432	.06613	.02034	.00922	.00509	
1.00	1.00016	.99799	.98816	.94614	.50620	.06237	.01988	.00911	.00505	
1.25	.74736	.74525	.73585	.69773	.37788	.05790	.01932	.00898	.00501	
1.50	.49458	.49254	.48362	.44978	.25144	.05296	.01866	.00882	.00495	
1.75	.24181	.23985	.23148	.20205	.12499	.04780	.01793	.00864	.00489	
2.00	-.01094	-.01280	-.02060	-.04566	-.00519	.04264	.01713	.00844	.00482	
2.25	-.01078	-.01255	-.01974	-.04067	-.00144	.03766	.01629	.00822	.00474	
2.50	-.01061	-.01227	-.01884	-.03600	-.00144	.03300	.01542	.00798	.00466	
2.75	-.01042	-.01198	-.01794	-.03173	-.00143	.02875	.01453	.00773	.00457	
3.00	-.01022	-.01167	-.01702	-.02790	-.00142	.02494	.01365	.00747	.00447	
3.25	-.01001	-.01135	-.01612	-.02453	-.00141	.02159	.01278	.00720	.00437	
3.50	-.00980	-.01102	-.01524	-.02158	-.00140	.01866	.01192	.00692	.00426	
3.75	-.00957	-.01069	-.01438	-.01903	-.00139	.01613	.01110	.00665	.00415	
4.00	-.00934	-.01035	-.01356	-.01683	-.00138	.01395	.01030	.00636	.00403	
4.25	-.00910	-.01001	-.01277	-.01494	-.00137	.01208	.00955	.00608	.00392	
4.50	-.00886	-.00968	-.01202	-.01331	-.00136	.01047	.00883	.00581	.00380	
4.75	-.00862	-.00934	-.01131	-.01191	-.00135	.00910	.00816	.00553	.00368	
5.00	-.00838	-.00901	-.01065	-.01071	-.00134	.00792	.00753	.00527	.00356	
5.25	-.00813	-.00868	-.01002	-.00966	-.00133	.00690	.00694	.00500	.00344	
5.50	-.00789	-.00836	-.00943	-.00876	-.00132	.00603	.00640	.00475	.00332	
5.75	-.00764	-.00805	-.00889	-.00798	-.00130	.00527	.00589	.00450	.00320	
6.00	-.00740	-.00774	-.00837	-.00729	-.00129	.00462	.00542	.00426	.00308	

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, I_0, \alpha, 3$									
.00	1.00000	.99602	.97830	.90658	.50789	.10894	.03637	.01688	.00941
.25	1.00002	.99605	.97840	.90722	.50789	.10829	.03626	.01685	.00939
.50	1.00007	.99614	.97871	.90913	.50789	.10640	.03596	.01677	.00936
.75	1.00016	.99629	.97922	.91222	.50789	.10331	.03546	.01664	.00932
1.00	1.00029	.99649	.97992	.91641	.50884	.09913	.03478	.01647	.00926
1.25	.87279	.86909	.85314	.79389	.44407	.09401	.03392	.01625	.00918
1.50	.74533	.74175	.72651	.67214	.38025	.08812	.03292	.01598	.00909
1.75	.61789	.61445	.60002	.55096	.31643	.08166	.03178	.01567	.00898
2.00	.49049	.48719	.47364	.43013	.25261	.07485	.03053	.01533	.00885
2.25	.36311	.35998	.34736	.30945	.18880	.06790	.02920	.01495	.00871
2.50	.23576	.23280	.22114	.18871	.12498	.06101	.02780	.01455	.00856
2.75	.10842	.10564	.09495	.06772	.06116	.05436	.02636	.01412	.00840
3.00	-.01887	-.02147	-.03118	-.05360	-.00549	.04807	.02490	.01367	.00823
3.25	-.01853	-.02095	-.02970	-.04779	-.00265	.04226	.02343	.01320	.00805
3.50	-.01811	-.02034	-.02817	-.04244	-.00262	.03698	.02198	.01272	.00786
3.75	-.01771	-.01975	-.02669	-.03768	-.00260	.03226	.02056	.01224	.00766
4.00	-.01730	-.01916	-.02525	-.03346	-.00258	.02808	.01919	.01174	.00746
4.25	-.01687	-.01856	-.02386	-.02975	-.00257	.02442	.01786	.01125	.00725
4.50	-.01644	-.01796	-.02253	-.02652	-.00255	.02123	.01659	.01076	.00704
4.75	-.01601	-.01736	-.02125	-.02371	-.00253	.01846	.01538	.01027	.00682
5.00	-.01557	-.01676	-.02004	-.02127	-.00250	.01607	.01424	.00979	.00661
5.25	-.01512	-.01617	-.01890	-.01915	-.00248	.01400	.01316	.00932	.00639
5.50	-.01468	-.01559	-.01782	-.01731	-.00246	.01222	.01216	.00887	.00618
5.75	-.01424	-.01503	-.01680	-.01572	-.00244	.01067	.01122	.00842	.00596
6.00	-.01380	-.01447	-.01585	-.01433	-.00241	.00934	.01034	.00798	.00575
6.25	-.01337	-.01393	-.01496	-.01311	-.00239	.00818	.00953	.00757	.00553
6.50	-.01294	-.01340	-.01413	-.01204	-.00236	.00717	.00877	.00716	.00533
6.75	-.01252	-.01289	-.01336	-.01111	-.00234	.00629	.00808	.00677	.00512
7.00	-.01210	-.01239	-.01263	-.01028	-.00231	.00552	.00743	.00640	.00492
7.25	-.01169	-.01191	-.01196	-.00954	-.00228	.00484	.00684	.00604	.00472
7.50	-.01129	-.01145	-.01133	-.00889	-.00226	.00425	.00629	.00570	.00453
7.75	-.01090	-.01100	-.01074	-.00831	-.00223	.00373	.00578	.00538	.00434
8.00	-.01052	-.01057	-.01019	-.00778	-.00220	.00326	.00531	.00507	.00416
8.25	-.01016	-.01015	-.00968	-.00731	-.00217	.00285	.00488	.00478	.00398
8.50	-.00980	-.00976	-.00920	-.00689	-.00214	.00249	.00449	.00450	.00381
8.75	-.00945	-.00937	-.00876	-.00650	-.00212	.00217	.00412	.00423	.00364
9.00	-.00911	-.00901	-.00834	-.00615	-.00209	.00188	.00379	.00398	.00348

TABLE I. - Continued. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 10; \alpha, 4$									
.00	1.00000	.99412	.96910	.88109	.51244	.14338	.05402	.02621	.01489
.25	1.00003	.99416	.96923	.88169	.51244	.14278	.05389	.02617	.01488
.50	1.00011	.99429	.96962	.88349	.51244	.14099	.05351	.02606	.01484
.75	1.00024	.99450	.97026	.88643	.51245	.13806	.05289	.02589	.01477
1.00	1.00043	.99479	.97114	.89046	.51309	.13405	.05203	.02564	.01468
1.25	.91452	.90901	.88610	.80933	.46939	.12905	.05096	.02532	.01456
1.50	.82866	.82331	.80126	.72908	.42633	.12318	.04968	.02495	.01442
1.75	.74284	.73768	.71662	.64958	.38327	.11656	.04822	.02451	.01426
2.00	.65708	.65211	.63214	.57066	.34021	.10936	.04660	.02402	.01407
2.25	.57135	.56661	.54781	.49218	.29715	.10173	.04484	.02348	.01386
2.50	.48566	.48115	.46358	.41397	.25410	.09384	.04298	.02289	.01364
2.75	.40002	.39575	.37945	.33587	.21104	.08584	.04103	.02227	.01339
3.00	.31440	.31039	.29538	.25771	.16799	.07791	.03903	.02161	.01313
3.25	.22881	.22507	.21135	.17936	.12494	.07017	.03699	.02093	.01285
3.50	.14325	.13977	.12734	.10068	.08189	.06276	.03494	.02022	.01257
3.75	.05764	.05442	.04324	.02148	.03881	.05578	.03290	.01950	.01227
4.00	-.02780	-.03075	-.04072	-.05805	-.00675	.04932	.03089	.01877	.01196
4.25	-.02727	-.02997	-.03879	-.05221	-.00423	.04342	.02893	.01803	.01164
4.50	-.02648	-.02893	-.03666	-.04669	-.00414	.03809	.02702	.01729	.01131
4.75	-.02581	-.02801	-.03471	-.04187	-.00410	.03334	.02518	.01655	.01098
5.00	-.02513	-.02710	-.03285	-.03759	-.00407	.02915	.02343	.01581	.01065
5.25	-.02444	-.02619	-.03106	-.03382	-.00403	.02546	.02175	.01509	.01031
5.50	-.02375	-.02529	-.02936	-.03052	-.00400	.02223	.02017	.01438	.00998
5.75	-.02306	-.02440	-.02775	-.02762	-.00396	.01942	.01867	.01369	.00964
6.00	-.02238	-.02353	-.02622	-.02509	-.00392	.01698	.01727	.01301	.00931
6.25	-.02169	-.02268	-.02479	-.02287	-.00388	.01485	.01595	.01235	.00897
6.50	-.02102	-.02185	-.02343	-.02093	-.00384	.01300	.01472	.01171	.00865
6.75	-.02035	-.02103	-.02217	-.01922	-.00380	.01138	.01358	.01110	.00832
7.00	-.01969	-.02024	-.02098	-.01772	-.00376	.00998	.01252	.01050	.00800
7.25	-.01905	-.01948	-.01986	-.01639	-.00372	.00874	.01153	.00994	.00769
7.50	-.01841	-.01873	-.01882	-.01522	-.00367	.00766	.01062	.00939	.00738
7.75	-.01779	-.01802	-.01785	-.01417	-.00363	.00671	.00978	.00887	.00708
8.00	-.01719	-.01732	-.01694	-.01323	-.00358	.00588	.00900	.00837	.00679
8.25	-.01659	-.01665	-.01608	-.01240	-.00354	.00514	.00827	.00789	.00651
8.50	-.01602	-.01601	-.01529	-.01165	-.00349	.00449	.00761	.00744	.00623
8.75	-.01546	-.01539	-.01454	-.01097	-.00345	.00391	.00699	.00701	.00596
9.00	-.01491	-.01480	-.01385	-.01035	-.00340	.00340	.00643	.00660	.00570
9.25	-.01438	-.01422	-.01319	-.00979	-.00335	.00294	.00590	.00621	.00545
9.50	-.01387	-.01367	-.01258	-.00928	-.00331	.00253	.00542	.00584	.00520
9.75	-.01338	-.01315	-.01201	-.00882	-.00326	.00217	.00497	.00549	.00497
10.00	-.01290	-.01264	-.01147	-.00839	-.00321	.00185	.00456	.00516	.00474
10.50	-.01199	-.01169	-.01049	-.00764	-.00312	.00129	.00383	.00455	.00431
11.00	-.01114	-.01082	-.00962	-.00699	-.00302	.00085	.00321	.00401	.00391
11.50	-.01035	-.01003	-.00884	-.00643	-.00293	.00048	.00267	.00353	.00355
12.00	-.00962	-.00929	-.00815	-.00594	-.00284	.00019	.00222	.00309	.00321

TABLE I. - Concluded. AXIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, I_0, a, 5$									
.00	1.00000	.99220	.96045	.86121	.51783	.17385	.07265	.03691	.02144
.25	1.00004	.99225	.96060	.86175	.51783	.17331	.07250	.03687	.02142
.50	1.00014	.99241	.96103	.86338	.51783	.17169	.07208	.03673	.02137
.75	1.00032	.99268	.96175	.86607	.51784	.16902	.07139	.03650	.02128
1.00	1.00057	.99305	.96275	.86976	.51833	.16535	.07043	.03619	.02116
1.25	.99334	.92798	.89846	.80885	.48509	.16074	.06921	.03579	.02100
1.50	.87018	.86300	.83441	.74881	.45233	.15527	.06776	.03532	.02081
1.75	.80507	.79811	.77059	.68954	.41957	.14903	.06609	.03476	.02059
2.00	.74003	.73331	.70698	.63094	.38681	.14212	.06422	.03414	.02034
2.25	.67505	.66859	.64355	.57291	.35406	.13465	.06217	.03344	.02006
2.50	.61012	.60395	.58029	.51532	.32131	.12675	.05997	.03269	.01975
2.75	.54525	.53937	.51716	.45806	.28857	.11853	.05765	.03188	.01942
3.00	.48042	.47486	.45414	.40100	.25582	.11010	.05522	.03103	.01907
3.25	.41563	.41039	.39120	.34404	.22308	.10160	.05272	.03013	.01869
3.50	.35089	.34598	.32832	.28705	.19034	.09312	.05017	.02921	.01830
3.75	.28618	.28160	.26547	.22992	.15760	.08478	.04759	.02825	.01788
4.00	.22150	.21726	.20263	.17255	.12487	.07670	.04501	.02727	.01746
4.25	.15684	.15293	.13978	.11484	.09214	.06895	.04245	.02627	.01702
4.50	.09221	.08863	.07690	.05670	.05941	.06164	.03993	.02527	.01657
4.75	.02740	.02414	.01376	-.00211	.02658	.05481	.03746	.02426	.01611
5.00	-.03700	-.03995	-.04903	-.06107	-.00848	.04853	.03507	.02326	.01564
5.25	-.03631	-.03896	-.04683	-.05550	-.00613	.04280	.03275	.02226	.01517
5.50	-.03508	-.03744	-.04418	-.04996	-.00595	.03765	.03053	.02127	.01470
5.75	-.03410	-.03618	-.04187	-.04523	-.00589	.03305	.02840	.02030	.01423
6.00	-.03313	-.03495	-.03968	-.04102	-.00583	.02897	.02639	.01935	.01376
6.25	-.03216	-.03374	-.03760	-.03730	-.00577	.02537	.02448	.01841	.01328
6.50	-.03120	-.03255	-.03561	-.03401	-.00571	.02221	.02267	.01751	.01282
6.75	-.03024	-.03139	-.03374	-.03110	-.00565	.01945	.02098	.01663	.01235
7.00	-.02930	-.03025	-.03197	-.02855	-.00559	.01702	.01939	.01577	.01190
7.25	-.02837	-.02914	-.03030	-.02629	-.00553	.01490	.01791	.01495	.01145
7.50	-.02745	-.02806	-.02873	-.02429	-.00547	.01305	.01653	.01415	.01101
7.75	-.02656	-.02701	-.02726	-.02252	-.00540	.01142	.01524	.01339	.01057
8.00	-.02568	-.02600	-.02587	-.02095	-.00534	.00999	.01405	.01266	.01015
8.25	-.02482	-.02502	-.02458	-.01954	-.00527	.00874	.01294	.01196	.00973
8.50	-.02397	-.02407	-.02336	-.01829	-.00520	.00763	.01191	.01129	.00933
8.75	-.02315	-.02316	-.02222	-.01716	-.00513	.00665	.01096	.01065	.00894
9.00	-.02236	-.02228	-.02115	-.01615	-.00507	.00579	.01008	.01004	.00856
9.25	-.02158	-.02143	-.02014	-.01523	-.00500	.00502	.00927	.00946	.00819
9.50	-.02083	-.02061	-.01920	-.01440	-.00493	.00434	.00852	.00891	.00783
9.75	-.02010	-.01983	-.01832	-.01364	-.00486	.00373	.00782	.00839	.00748
10.00	-.01939	-.01907	-.01749	-.01295	-.00479	.00319	.00718	.00789	.00714
10.50	-.01804	-.01765	-.01598	-.01174	-.00465	.00227	.00604	.00697	.00651
11.00	-.01678	-.01635	-.01464	-.01071	-.00451	.00154	.00506	.00615	.00592
11.50	-.01561	-.01515	-.01345	-.00982	-.00438	.00094	.00423	.00541	.00537
12.00	-.01451	-.01405	-.01239	-.00905	-.00424	.00046	.00351	.00476	.00487
13.00	-.01257	-.01211	-.01058	-.00778	-.00397	-.00024	.00237	.00365	.00397
14.00	-.01090	-.01048	-.00912	-.00677	-.00371	-.00070	.00153	.00277	.00322
15.00	-.00948	-.00910	-.00791	-.00595	-.00346	-.00100	.00091	.00207	.00260

TABLE II. - AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL TO  
RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, l; \alpha, 1.5$										
.00	1.00000	.97773	.91159	.80593	.67327	.53435	.40915	.30798	.23140	
.25	1.01116	.98881	.92180	.81305	.67481	.53049	.40276	.30167	.22628	
.50	1.04460	1.02250	.95420	.83678	.67930	.51627	.38152	.28200	.21093	
.75	1.09937	1.07935	1.01429	.88799	.68634	.47998	.33899	.24747	.18573	
1.00	1.17146	1.15692	1.10801	1.00066	.69533	.38634	.26764	.19854	.15255	
1.25	.38118	.37474	.35489	.32010	.27008	.21751	.17499	.14179	.11563	
1.50	- .25292	- .25230	- .24694	- .22016	- .07510	.06848	.09086	.08912	.08062	
1.75	- .18772	- .18369	- .16865	- .13258	- .06474	.00245	.03674	.04947	.05191	
2.00	- .13790	- .13349	- .11914	- .09254	- .05515	- .01781	.00880	.02387	.03090	
2.25	- .10187	- .09829	- .08743	- .06949	- .04661	- .02343	- .00444	.00871	.01668	
2.50	- .07634	- .07374	- .06610	- .05408	- .03923	- .02391	- .01037	.00014	.00751	
2.75	- .05823	- .05641	- .05114	- .04299	- .03298	- .02245	- .01268	- .00449	.00178	
3.00	- .04523	- .04397	- .04032	- .03470	- .02776	- .02033	- .01317	- .00685	- .00167	
3.25	- .03574	- .03485	- .03230	- .02835	- .02344	- .01808	- .01276	- .00788	- .00368	
3.50	- .02868	- .02805	- .02624	- .02342	- .01987	- .01593	- .01194	- .00815	- .00477	
3.75	- .02335	- .02289	- .02158	- .01953	- .01693	- .01399	- .01095	- .00800	- .00528	
4.00	- .01924	- .01891	- .01795	- .01643	- .01449	- .01227	- .00993	- .00761	- .00543	
4.25	- .01604	- .01580	- .01508	- .01394	- .01247	- .01077	- .00895	- .00712	- .00535	
4.50	- .01351	- .01333	- .01278	- .01192	- .01079	- .00947	- .00805	- .00659	- .00515	
Nondimensional coil parameters: $\beta, l; \alpha, 2$										
.00	1.00000	.97945	.91883	.82282	.70254	.57515	.45718	.35796	.27928	
.25	1.01034	.98958	.92794	.82915	.70430	.57248	.45219	.35268	.27472	
.50	1.04154	1.02051	.95665	.84985	.70946	.56255	.43561	.33616	.26088	
.75	1.09361	1.07331	1.00936	.89254	.71768	.53705	.40236	.30672	.23769	
1.00	1.16475	1.14750	1.09168	.98074	.72843	.47132	.34557	.26352	.20589	
1.25	.69201	.68035	.64301	.57237	.46215	.34828	.26642	.20941	.16794	
1.50	.32635	.32124	.30592	.28075	.24788	.21253	.17983	.15167	.12799	
1.75	.02663	.02710	.03025	.04196	.06900	.09463	.10217	.09865	.09059	
2.00	- .23337	- .22957	- .21575	- .18251	- .08462	.01273	.04448	.05643	.05920	
2.25	- .17488	- .17014	- .15440	- .12303	- .07240	- .02171	.01003	.02710	.03535	
2.50	- .13108	- .12689	- .11390	- .09148	- .06151	- .03110	- .00719	.00886	.01864	
2.75	- .09928	- .09609	- .08657	- .07128	- .05205	- .03219	- .01490	- .00165	.00762	
3.00	- .07636	- .07407	- .06737	- .05692	- .04400	- .03039	- .01782	- .00736	.00068	
3.25	- .05973	- .05811	- .05343	- .04619	- .03723	- .02761	- .01836	- .01021	- .00352	
3.50	- .04749	- .04635	- .04305	- .03795	- .03158	- .02463	- .01773	- .01140	- .00594	
3.75	- .03834	- .03752	- .03517	- .03150	- .02690	- .02177	- .01657	- .01163	- .00721	
4.00	- .03137	- .03079	- .02908	- .02640	- .02301	- .01918	- .01520	- .01133	- .00776	
4.25	- .02599	- .02556	- .02430	- .02232	- .01978	- .01687	- .01380	- .01075	- .00787	
4.50	- .02178	- .02145	- .02051	- .01902	- .01709	- .01485	- .01246	- .01004	- .00770	
4.75	- .01842	- .01818	- .01746	- .01632	- .01484	- .01310	- .01122	- .00928	- .00738	
5.00	- .01573	- .01554	- .01499	- .01410	- .01295	- .01158	- .01009	- .00853	- .00697	
5.25	- .01353	- .01338	- .01295	- .01226	- .01136	- .01027	- .00907	- .00781	- .00653	
5.50	- .01173	- .01161	- .01127	- .01073	- .01000	- .00913	- .00816	- .00713	- .00608	
5.75	- .01023	.01014	- .00987	- .00943	- .00885	- .00815	- .00736	- .00651	- .00564	
6.00	- .00898	- .00891	- .00869	- .00834	- .00787	- .00729	- .00664	- .00595	- .00522	

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l, \alpha, 3$									
.00	1.00000	.98192	.92870	.84457	.73881	.62534	.51761	.42369	.34585
.25	1.00911	.99080	.93664	.85017	.74073	.62367	.51393	.41956	.34207
.50	1.03668	1.01796	.96153	.86827	.74639	.61722	.50165	.40657	.33060
.75	1.08307	1.06447	1.00682	.90452	.75556	.59984	.47687	.38331	.31117
1.00	1.14757	1.13060	1.07709	.97623	.76782	.55342	.43417	.34870	.28398
1.25	.82437	.81071	.76823	.69238	.58122	.46496	.37356	.30410	.25033
1.50	.58477	.57511	.54591	.49731	.43334	.36530	.30428	.25369	.21264
1.75	.39994	.39400	.37638	.34813	.31205	.27294	.23547	.20218	.17364
2.00	.25098	.24813	.23978	.22661	.20981	.19097	.17164	.15301	.13573
2.25	.12503	.12471	.12391	.12291	.12156	.11905	.11461	.10829	.10071
2.50	.01303	.01479	.02038	.03032	.04372	.05670	.06547	.06950	.06990
2.75	-.09152	-.08822	-.07759	-.05742	-.02627	-.00503	.02577	.03784	.04422
3.00	-.19307	-.18904	-.17595	-.14990	-.09028	-.03012	-.00230	.01421	.02417
3.25	-.14947	-.14559	-.13335	-.11096	-.07742	-.04309	-.01826	-.00152	.00961
3.50	-.11639	-.11321	-.10353	-.08739	-.06623	-.04420	-.02535	-.01085	-.00021
3.75	-.09172	-.08931	-.08221	-.07090	-.05665	-.04152	-.02753	-.01576	-.00642
4.00	-.07332	-.07157	-.06647	-.05849	-.04852	-.03772	-.02727	-.01793	-.01007
4.25	-.05946	-.05820	-.05454	-.04883	-.04166	-.03377	-.02586	-.01850	-.01201
4.50	-.04889	-.04798	-.04532	-.04116	-.03591	-.03002	-.02397	-.01816	-.01285
4.75	-.04070	-.04003	-.03807	-.03500	-.03107	-.02661	-.02193	-.01732	-.01299
5.00	-.03426	-.03376	-.03229	-.02999	-.02701	-.02358	-.01993	-.01625	-.01271
5.25	-.02913	-.02875	-.02764	-.02588	-.02359	-.02092	-.01804	-.01509	-.01219
5.50	-.02498	-.02469	-.02384	-.02248	-.02069	-.01859	-.01630	-.01391	-.01154
5.75	-.02160	-.02137	-.02071	-.01964	-.01824	-.01657	-.01472	-.01278	-.01082
6.00	-.01881	-.01863	-.01810	-.01726	-.01614	-.01480	-.01331	-.01172	-.01009
6.25	-.01648	-.01634	-.01592	-.01525	-.01435	-.01326	-.01204	-.01073	-.00938
6.50	-.01453	-.01442	-.01408	-.01353	-.01280	-.01192	-.01091	-.00983	-.00870
6.75	-.01288	-.01279	-.01251	-.01207	-.01147	-.01074	-.00991	-.00900	-.00805
7.00	-.01147	-.01140	-.01117	-.01081	-.01031	-.00970	-.00901	-.00825	-.00745
7.25	-.01027	-.01020	-.01002	-.00971	-.00930	-.00880	-.00822	-.00758	-.00689
7.50	-.00922	-.00917	-.00902	-.00876	-.00842	-.00799	-.00750	-.00696	-.00638
7.75	-.00832	-.00828	-.00815	-.00793	-.00764	-.00728	-.00687	-.00641	-.00591
8.00	-.00753	-.00749	-.00738	-.00720	-.00696	-.00665	-.00630	-.00590	-.00547
8.25	-.00684	-.00681	-.00671	-.00656	-.00635	-.00609	-.00579	-.00545	-.00508
8.50	-.00623	-.00620	-.00612	-.00599	-.00582	-.00559	-.00533	-.00503	-.00471
8.75	-.00569	-.00567	-.00560	-.00549	-.00534	-.00514	-.00491	-.00466	-.00438
9.00	-.00522	-.00520	-.00514	-.00504	-.00491	-.00474	-.00454	-.00432	-.00408

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l, \alpha, 4$									
.00	1.00000	.98335	.93435	.85682	.75912	.65368	.55256	.46312	.38759
.25	1.00839	.99153	.94166	.86204	.76105	.65239	.54945	.45953	.38426
.50	1.03379	1.01653	.96456	.87883	.76675	.64728	.53901	.44827	.37415
.75	1.07658	1.05935	1.00612	.91216	.77604	.63296	.51781	.42805	.35698
1.00	1.13624	1.12033	1.07039	.97722	.78857	.59358	.48110	.39788	.33289
1.25	.85833	.84515	.80441	.73242	.62789	.51778	.42880	.35888	.30292
1.50	.65495	.64505	.61527	.56611	.50166	.43246	.36890	.31455	.26903
1.75	.50124	.49429	.47376	.44102	.39929	.35367	.30921	.26882	.23346
2.00	.38117	.37652	.36290	.34145	.31422	.28394	.25335	.22438	.19802
2.25	.28413	.28120	.27266	.25921	.24203	.22260	.20240	.18260	.16394
2.50	.20295	.20135	.19665	.18922	.17959	.16841	.15638	.14408	.13198
2.75	.13261	.13209	.13055	.12803	.12457	.12020	.11497	.10902	.10255
3.00	.06940	.06984	.07112	.07306	.07523	.07702	.07787	.07750	.07594
3.25	.01038	.01175	.01579	.02223	.03021	.03826	.04498	.04969	.05241
3.50	- .04689	- .04465	- .03784	- .02645	- .01153	.00381	.01656	.02591	.03225
3.75	- .10450	- .10156	- .09233	- .07562	- .05080	- .02528	- .00641	.00669	.01574
4.00	- .16397	- .16074	- .15045	- .13070	- .08819	- .04482	- .02242	- .00743	.00306
4.25	- .13030	- .12729	- .11792	- .10110	- .07630	- .05057	- .03090	- .01652	- .00594
4.50	- .10428	- .10182	- .09440	- .08210	- .06599	- .04894	- .03381	- .02150	- .01179
4.75	- .08442	- .08255	- .07704	- .06825	- .05712	- .04511	- .03368	- .02364	- .01523
5.00	- .06925	- .06787	- .06384	- .05752	- .04955	- .04078	- .03208	- .02405	- .01697
5.25	- .05755	- .05653	- .05358	- .04897	- .04311	- .03657	- .02987	- .02346	- .01759
5.50	- .04839	- .04764	- .04546	- .04203	- .03765	- .03267	- .02746	- .02233	- .01749
5.75	- .04114	- .04057	- .03893	- .03635	- .03301	- .02917	- .02507	- .02095	- .01697
6.00	- .03530	- .03487	- .03362	- .03164	- .02907	- .02606	- .02281	- .01947	- .01619
6.25	- .03055	- .03022	- .02926	- .02772	- .02570	- .02332	- .02072	- .01800	- .01529
6.50	- .02664	- .02638	- .02563	- .02442	- .02282	- .02092	- .01881	- .01659	- .01433
6.75	- .02339	- .02319	- .02259	- .02162	- .02034	- .01880	- .01709	- .01526	- .01338
7.00	- .02066	- .02050	- .02002	- .01924	- .01820	- .01695	- .01554	- .01402	- .01245
7.25	- .01835	- .01822	- .01783	- .01720	- .01635	- .01532	- .01416	- .01289	- .01156
7.50	- .01638	- .01627	- .01595	- .01544	- .01474	- .01389	- .01291	- .01185	- .01073
7.75	- .01469	- .01460	- .01434	- .01391	- .01333	- .01262	- .01180	- .01091	- .00995
8.00	- .01323	- .01315	- .01293	- .01258	- .01209	- .01150	- .01081	- .01005	- .00924
8.25	- .01196	- .01190	- .01171	- .01141	- .01101	- .01050	- .00992	- .00927	- .00857
8.50	- .01085	- .01080	- .01064	- .01039	- .01004	- .00961	- .00912	- .00856	- .00796
8.75	- .00987	- .00983	- .00970	- .00948	- .00919	- .00882	- .00840	- .00792	- .00740
9.00	- .00902	- .00898	- .00887	- .00868	- .00843	- .00811	- .00775	- .00733	- .00688
9.25	- .00826	- .00822	- .00813	- .00797	- .00775	- .00748	- .00716	- .00680	- .00641
9.50	- .00758	- .00755	- .00747	- .00733	- .00715	- .00691	- .00663	- .00632	- .00598
9.75	- .00698	- .00695	- .00688	- .00676	- .00660	- .00639	- .00615	- .00588	- .00558
10.00	- .00644	- .00642	- .00635	- .00625	- .00611	- .00593	- .00572	- .00548	- .00521
10.50	- .00551	- .00550	- .00545	- .00537	- .00526	- .00512	- .00496	- .00477	- .00457
11.00	- .00476	- .00475	- .00471	- .00465	- .00457	- .00445	- .00433	- .00418	- .00402
11.50	- .00414	- .00413	- .00410	- .00405	- .00399	- .00390	- .00380	- .00368	- .00355
12.00	- .00363	- .00362	- .00360	- .00356	- .00350	- .00343	- .00335	- .00326	- .00315

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta$ , $l$ ; $a$ , 5									
.00	1.00000	.98423	.93782	.86436	.77166	.67133	.57467	.48858	.41522
.25	1.00794	.99198	.94475	.86933	.77356	.67023	.57184	.48529	.41216
.50	1.03200	1.01564	.96645	.88531	.77918	.66574	.56235	.47497	.40284
.75	1.07252	1.05619	1.00576	.91692	.78836	.65289	.54300	.45641	.38702
1.00	1.12907	1.11393	1.06650	.97827	.80080	.61696	.50937	.42870	.36479
1.25	.87256	.85993	.82093	.75220	.65264	.54740	.46140	.39284	.33712
1.50	.68569	.67606	.64711	.59936	.53674	.46918	.40648	.35210	.30581
1.75	.54548	.53851	.51796	.48518	.44330	.39724	.35186	.31008	.27289
2.00	.43712	.43221	.41782	.39513	.36623	.33390	.30089	.26923	.24001
2.25	.35092	.34749	.33747	.32168	.30148	.27853	.25451	.23078	.20825
2.50	.28040	.27804	.27113	.26023	.24617	.22997	.21268	.19519	.17819
2.75	.22117	.21960	.21499	.20768	.19817	.18705	.17497	.16250	.15010
3.00	.17014	.16918	.16636	.16184	.15587	.14878	.14091	.13257	.12405
3.25	.12507	.12461	.12326	.12106	.11805	.11434	.11002	.10520	.10003
3.50	.08422	.08421	.08419	.08407	.08373	.08304	.08189	.08021	.07801
3.75	.04618	.04662	.04790	.04983	.05211	.05435	.05622	.05746	.05796
4.00	.00971	.01063	.01331	.01746	.02256	.02791	.03285	.03690	.03991
4.25	-.02635	-.02491	-.02067	-.01392	-.00543	-.00354	-.01178	-.01864	-.02397
4.50	-.06317	-.06119	-.05521	-.04528	-.03229	-.01863	-.00663	-.00295	-.01033
4.75	-.10183	-.09939	-.09182	-.07827	-.05835	-.03762	-.02159	-.00970	-.00079
5.00	-.14315	-.14055	-.13232	-.11670	-.08385	-.05012	-.03180	-.01887	-.00925
5.25	-.11595	-.11355	-.10608	-.09276	-.07322	-.05279	-.03672	-.02452	-.01510
5.50	-.09464	-.09267	-.08672	-.07687	-.06396	-.05018	-.03770	-.02724	-.01870
5.75	-.07811	-.07660	-.07213	-.06501	-.05595	-.04608	-.03654	-.02796	-.02057
6.00	-.06526	-.06414	-.06084	-.05564	-.04906	-.04175	-.03440	-.02747	-.02123
6.25	-.05518	-.05434	-.05189	-.04805	-.04315	-.03761	-.03189	-.02630	-.02109
6.50	-.04716	-.04654	-.04470	-.04180	-.03808	-.03382	-.02931	-.02480	-.02047
6.75	-.04070	-.04022	-.03883	-.03661	-.03374	-.03041	-.02682	-.02316	-.01957
7.00	-.03542	-.03506	-.03398	-.03226	-.03001	-.02737	-.02449	-.02150	-.01851
7.25	-.03106	-.03078	-.02993	-.02858	-.02680	-.02469	-.02235	-.01989	-.01740
7.50	-.02742	-.02719	-.02652	-.02545	-.02402	-.02231	-.02040	-.01837	-.01628
7.75	-.02435	-.02417	-.02363	-.02276	-.02161	-.02021	-.01864	-.01695	-.01519
8.00	-.02175	-.02160	-.02116	-.02045	-.01951	-.01836	-.01705	-.01563	-.01415
8.25	-.01951	-.01939	-.01903	-.01845	-.01767	-.01671	-.01562	-.01443	-.01317
8.50	-.01758	-.01748	-.01719	-.01670	-.01605	-.01525	-.01434	-.01333	-.01225
8.75	-.01591	-.01583	-.01558	-.01518	-.01463	-.01396	-.01318	-.01232	-.01140
9.00	-.01445	-.01438	-.01417	-.01383	-.01337	-.01280	-.01214	-.01140	-.01061
9.25	-.01317	-.01311	-.01293	-.01264	-.01225	-.01176	-.01120	-.01057	-.00988
9.50	-.01204	-.01198	-.01184	-.01159	-.01126	-.01084	-.01035	-.00981	-.00921
9.75	-.01103	-.01099	-.01086	-.01065	-.01037	-.01000	-.00958	-.00911	-.00859
10.00	-.01014	-.01011	-.01000	-.00981	-.00957	-.00925	-.00889	-.00848	-.00803
10.50	-.00864	-.00861	-.00853	-.00839	-.00820	-.00796	-.00768	-.00737	-.00702
11.00	-.00742	-.00740	-.00733	-.00723	-.00709	-.00690	-.00669	-.00644	-.00617
11.50	-.00643	-.00641	-.00636	-.00628	-.00617	-.00602	-.00585	-.00566	-.00544
12.00	-.00560	-.00559	-.00555	-.00549	-.00540	-.00528	-.00515	-.00499	-.00482
13.00	-.00434	-.00433	-.00431	-.00427	-.00421	-.00413	-.00405	-.00394	-.00383
14.00	-.00344	-.00343	-.00341	-.00339	-.00335	-.00329	-.00324	-.00317	-.00309
15.00	-.00277	-.00276	-.00275	-.00273	-.00271	-.00267	-.00263	-.00258	-.00253

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; \alpha, 1.5$									
.00	1.00000	.98084	.91449	.77675	.56127	.34365	.19899	.11903	.07542
.25	1.00229	.98368	.91898	.78232	.56140	.33838	.19490	.11685	.07430
.50	1.00896	.99196	.93241	.80049	.56178	.32107	.18266	.11048	.07106
.75	1.01941	1.00500	.95437	.83588	.56241	.28707	.16260	.10046	.06597
1.00	1.03276	1.02162	.98327	.89383	.56324	.23098	.13621	.08777	.05949
1.25	.40114	.39352	.36896	.32168	.24087	.15861	.10675	.07370	.05217
1.50	-.11154	-.11591	-.12795	-.13797	-.02219	.09236	.07854	.05964	.04458
1.75	-.09616	-.09795	-.10085	-.09129	-.02094	.04841	.05494	.04675	.03722
2.00	-.08192	-.08194	-.07946	-.06413	-.01963	.02409	.03709	.03570	.03045
2.25	-.06923	-.06823	-.06326	-.04816	-.01829	.01100	.02440	.02670	.02449
2.50	-.05827	-.05680	-.05111	-.03805	-.01696	.00373	.01563	.01962	.01941
2.75	-.04899	-.04740	-.04192	-.03114	-.01566	-.00043	.00963	.01418	.01519
3.00	-.04124	-.03972	-.03483	-.02609	-.01440	-.00285	.00551	.01005	.01174
3.25	-.03482	-.03346	-.02928	-.02223	-.01321	-.00424	.00269	.00694	.00895
3.50	-.02952	-.02835	-.02485	-.01917	-.01209	-.00500	.00075	.00461	.00672
3.75	-.02514	-.02416	-.02126	-.01668	-.01105	-.00537	-.00057	.00286	.00495
4.00	-.02152	-.02071	-.01832	-.01461	-.01009	-.00548	-.00146	.00156	.00355
4.25	-.01852	-.01785	-.01589	-.01288	-.00921	-.00543	-.00206	.00059	.00245
4.50	-.01603	-.01547	-.01387	-.01140	-.00841	-.00529	-.00244	-.00011	.00158
Nondimensional coil parameters: $\beta, 2; \alpha, 2$									
.00	1.00000	.97931	.91047	.77684	.57898	.37833	.23569	.14954	.09877
.25	1.00250	.98224	.91458	.78137	.57915	.37418	.23209	.14738	.09756
.50	1.00985	.99088	.92694	.79606	.57966	.36061	.22122	.14102	.09401
.75	1.02155	1.00473	.94749	.82436	.58048	.33413	.20308	.13081	.08835
1.00	1.03684	1.02289	.97548	.87089	.58159	.29003	.17829	.11745	.08098
1.25	.65783	.64724	.61203	.53763	.38450	.22938	.14872	.10193	.07240
1.50	.35284	.34571	.32336	.28306	.22392	.16307	.11746	.08549	.06316
1.75	.09822	.09424	.08343	.07266	.08853	.10300	.08788	.06940	.05385
2.00	-.12044	-.12189	-.12395	-.11522	-.02842	.05725	.06257	.05467	.04494
2.25	-.10306	-.10274	-.09930	-.08235	-.02657	.02834	.04272	.04195	.03679
2.50	-.08756	-.08618	-.08002	-.06216	-.02472	.01210	.02813	.03147	.02960
2.75	-.07409	-.07222	-.06523	-.04932	-.02289	.00311	.01782	.02312	.02346
3.00	-.06263	-.06064	-.05386	-.04053	-.02111	-.00195	.01068	.01663	.01833
3.25	-.05299	-.05110	-.04502	-.03412	-.01942	-.00484	.00576	.01167	.01412
3.50	-.04496	-.04326	-.03803	-.02919	-.01781	-.00645	.00238	.00792	.01071
3.75	-.03829	-.03682	-.03242	-.02527	-.01631	-.00730	.00006	.00509	.00797
4.00	-.03275	-.03152	-.02786	-.02206	-.01492	-.00767	-.00150	.00297	.00580
4.25	-.02815	-.02712	-.02410	-.01939	-.01363	-.00773	-.00256	.00140	.00407
4.50	-.02432	-.02347	-.02098	-.01714	-.01245	-.00761	-.00324	.00023	.00271
4.75	-.02112	-.02041	-.01837	-.01522	-.01138	-.00736	-.00367	-.00062	.00164
5.00	-.01843	-.01785	-.01616	-.01356	-.01040	-.00705	-.00391	-.00125	.00081
5.25	-.01616	-.01568	-.01428	-.01214	-.00950	-.00670	-.00402	-.00169	.00017
5.50	-.01424	-.01384	-.01268	-.01089	-.00870	-.00633	-.00404	-.00200	-.00032
5.75	-.01260	-.01226	-.01130	-.00981	-.00796	-.00596	-.00399	-.00221	-.00070
6.00	-.01120	-.01092	-.01011	-.00886	-.00730	-.00559	-.00390	-.00234	-.00099

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; a, 3$									
.00	1.00000	.97881	.91082	.78594	.60850	.42717	.28999	.19914	.14029
.25	1.00259	.98169	.91443	.78960	.60874	.42403	.28703	.19717	.13906
.50	1.01026	.99023	.92533	.80137	.60945	.41379	.27805	.19131	.13542
.75	1.02267	1.00411	.94357	.82376	.61060	.39391	.26294	.18177	.12953
1.00	1.03927	1.02277	.96882	.86021	.61218	.36085	.24191	.16896	.12166
1.25	.78669	.77272	.72732	.63780	.47780	.31482	.21595	.15350	.11218
1.50	.58654	.57538	.53966	.47243	.36868	.26228	.18681	.13620	.10153
1.75	.42237	.41408	.38818	.34208	.27702	.20967	.15650	.11798	.09019
2.00	.28399	.27844	.26171	.23411	.19815	.16027	.12677	.09971	.07862
2.25	.16453	.16142	.15278	.14096	.12903	.11554	.09897	.08218	.06728
2.50	.05918	.05811	.05613	.05751	.06757	.07640	.07410	.06600	.05653
2.75	-.03555	-.03506	-.03201	-.02046	.01226	.04406	.05291	.05164	.04666
3.00	-.12220	-.12064	-.11431	-.09677	-.03801	.02010	.03578	.03933	.03783
3.25	-.10479	-.10261	-.09465	-.07574	-.03521	.00491	.02269	.02913	.03015
3.50	-.08965	-.08723	-.07892	-.06156	-.03250	-.00367	.01314	.02093	.02361
3.75	-.07667	-.07427	-.06642	-.05158	-.02994	-.00835	.00639	.01448	.01814
4.00	-.06567	-.06344	-.05643	-.04413	-.02751	-.01084	.00172	.00951	.01365
4.25	-.05639	-.05441	-.04837	-.03828	-.02525	-.01208	-.00147	.00573	.01001
4.50	-.04860	-.04689	-.04178	-.03353	-.02315	-.01256	-.00362	.00288	.00708
4.75	-.04206	-.04061	-.03634	-.02958	-.02121	-.01258	-.00503	-.00075	.00475
5.00	-.03656	-.03535	-.03179	-.02625	-.01942	-.01233	-.00593	-.00081	.00291
5.25	-.03193	-.03091	-.02797	-.02340	-.01779	-.01190	-.00647	-.00196	.00146
5.50	-.02801	-.02717	-.02472	-.02094	-.01630	-.01138	-.00674	-.00278	.00033
5.75	-.02469	-.02398	-.02194	-.01881	-.01494	-.01080	-.00684	-.00336	-.00053
6.00	-.02185	-.02126	-.01956	-.01695	-.01371	-.01021	-.00680	-.00375	-.00120
6.25	-.01942	-.01893	-.01751	-.01531	-.01259	-.00961	-.00668	-.00400	-.00171
6.50	-.01733	-.01692	-.01572	-.01388	-.01157	-.00903	-.00649	-.00414	-.00208
6.75	-.01553	-.01518	-.01417	-.01261	-.01065	-.00847	-.00627	-.00419	-.00235
7.00	-.01396	-.01366	-.01281	-.01148	-.00981	-.00793	-.00602	-.00419	-.00254
7.25	-.01259	-.01234	-.01162	-.01048	-.00905	-.00743	-.00576	-.00415	-.00267
7.50	-.01140	-.01118	-.01056	-.00959	-.00836	-.00695	-.00549	-.00407	-.00274
7.75	-.01035	-.01016	-.00963	-.00880	-.00773	-.00651	-.00523	-.00396	-.00277
8.00	-.00942	-.00926	-.00880	-.00808	-.00716	-.00609	-.00497	-.00384	-.00278
8.25	-.00860	-.00846	-.00807	-.00744	-.00664	-.00571	-.00471	-.00372	-.00276
8.50	-.00787	-.00775	-.00741	-.00687	-.00616	-.00535	-.00447	-.00358	-.00272
8.75	-.00722	-.00712	-.00682	-.00635	-.00573	-.00501	-.00423	-.00344	-.00266
9.00	-.00664	-.00655	-.00629	-.00588	-.00534	-.00470	-.00401	-.00330	-.00260

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2, \alpha, 4$									
.00	1.00000	.97937	.91395	.79595	.63036	.46016	.32778	.23620	.17382
.25	1.00254	.98213	.91728	.79925	.63064	.45747	.32517	.23439	.17264
.50	1.01005	.99034	.92735	.80982	.63148	.44870	.31726	.22903	.16914
.75	1.02228	1.00375	.94423	.82979	.63287	.43167	.30391	.22025	.16345
1.00	1.03879	1.02190	.96765	.86214	.63475	.40334	.28528	.20838	.15578
1.25	.82713	.81227	.76487	.67479	.52118	.36383	.26215	.19391	.14642
1.50	.66084	.64824	.60859	.53647	.42922	.31857	.23592	.17748	.13573
1.75	.52599	.51571	.48391	.42856	.35224	.27290	.20817	.15978	.12408
2.00	.41392	.40590	.38149	.34047	.28627	.22942	.18024	.14151	.11186
2.25	.31883	.31290	.29513	.26610	.22869	.18901	.15305	.12324	.09943
2.50	.23657	.23253	.22061	.20167	.17772	.15188	.12721	.10545	.08712
2.75	.16410	.16171	.15489	.14461	.13206	.11797	.10310	.08854	.07521
3.00	.09910	.09814	.09573	.09305	.09073	.08722	.08101	.07278	.06393
3.25	.03980	.04003	.04136	.04546	.05300	.05967	.06118	.05842	.05345
3.50	- .01519	- .01401	- .00964	- .00039	- .01828	- .03557	- .04387	- .04564	.04392
3.75	- .06692	- .06504	- .05846	- .04375	- .01389	- .01560	- .02930	- .03455	.03543
4.00	- .11617	- .11386	- .10598	- .08878	- .04390	- .00081	- .01761	- .02520	.02800
4.25	- .10051	- .09802	- .08974	- .07266	- .04055	- .00844	- .00872	- .01753	.02164
4.50	- .08692	- .08445	- .07645	- .06117	- .03738	- .01347	- .00227	- .01140	.01628
4.75	- .07524	- .07293	- .06564	- .05263	- .03441	- .01597	- .00222	- .00661	.01185
5.00	- .06527	- .06319	- .05680	- .04596	- .03165	- .01705	- .00527	- .00295	.00822
5.25	- .05679	- .05497	- .04949	- .04053	- .02909	- .01731	- .00728	- .00019	.00530
5.50	- .04960	- .04803	- .04340	- .03600	- .02672	- .01708	- .00856	- .00186	.00298
5.75	- .04349	- .04216	- .03827	- .03215	- .02455	- .01658	- .00931	- .00335	.00114
6.00	- .03829	- .03717	- .03392	- .02884	- .02256	- .01590	- .00969	- .00443	- .00029
6.25	- .03386	- .03292	- .03019	- .02597	- .02074	- .01514	- .00981	- .00517	- .00140
6.50	- .03006	- .02927	- .02699	- .02346	- .01908	- .01435	- .00976	- .00567	- .00225
6.75	- .02680	- .02613	- .02422	- .02125	- .01756	- .01354	- .00958	- .00597	- .00289
7.00	- .02398	- .02342	- .02181	- .01931	- .01618	- .01275	- .00932	- .00614	- .00336
7.25	- .02154	- .02107	- .01971	- .01759	- .01493	- .01198	- .00900	- .00619	- .00370
7.50	- .01942	- .01902	- .01786	- .01606	- .01378	- .01124	- .00865	- .00617	- .00392
7.75	- .01756	- .01722	- .01623	- .01470	- .01274	- .01055	- .00828	- .00608	- .00407
8.00	- .01593	- .01564	- .01480	- .01348	- .01180	- .00989	- .00790	- .00596	- .00415
8.25	- .01450	- .01425	- .01353	- .01239	- .01093	- .00927	- .00753	- .00580	- .00417
8.50	- .01323	- .01302	- .01239	- .01141	- .01015	- .00869	- .00716	- .00562	- .00416
8.75	- .01211	- .01192	- .01138	- .01053	- .00943	- .00815	- .00680	- .00543	- .00411
9.00	- .01111	- .01095	- .01048	- .00973	- .00877	- .00765	- .00645	- .00523	- .00404
9.25	- .01021	- .01007	- .00966	- .00901	- .00817	- .00718	- .00612	- .00503	- .00396
9.50	- .00941	- .00929	- .00893	- .00836	- .00762	- .00675	- .00580	- .00482	- .00386
9.75	- .00869	- .00859	- .00827	- .00777	- .00712	- .00634	- .00550	- .00462	- .00375
10.00	- .00805	- .00795	- .00768	- .00723	- .00666	- .00597	- .00521	- .00442	- .00363
10.50	- .00693	- .00686	- .00664	- .00630	- .00584	- .00529	- .00469	- .00405	- .00340
11.00	- .00602	- .00596	- .00579	- .00551	- .00515	- .00471	- .00422	- .00369	- .00316
11.50	- .00525	- .00521	- .00507	- .00485	- .00456	- .00420	- .00380	- .00337	- .00292
12.00	- .00462	- .00458	- .00447	- .00429	- .00405	- .00376	- .00343	- .00307	- .00270

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; a, 5$									
.00	1.00000	.98003	.91700	.80412	.64638	.48362	.35515	.26415	.20036
.25	1.00246	.98269	.92017	.80721	.64669	.48118	.35275	.26247	.19924
.50	1.00975	.99059	.92971	.81713	.64761	.47322	.34548	.25746	.19590
.75	1.02165	1.00353	.94571	.83581	.64913	.45773	.33321	.24926	.19047
1.00	1.03776	1.02110	.96795	.86598	.65121	.43195	.31607	.23816	.18312
1.25	.84577	.83089	.78382	.69565	.54792	.39596	.29477	.22457	.17412
1.50	.69557	.68268	.64245	.57031	.46447	.35472	.27055	.20908	.16376
1.75	.57447	.56361	.53027	.47297	.39481	.31309	.24485	.19230	.15239
2.00	.47460	.46570	.43876	.39398	.33529	.27341	.21884	.17481	.14034
2.25	.39070	.38358	.36232	.32781	.28354	.23645	.19331	.15712	.12790
2.50	.31901	.31349	.29715	.27104	.23791	.20233	.16877	.13961	.11537
2.75	.25681	.25268	.24057	.22141	.19721	.17093	.14546	.12259	.10296
3.00	.20200	.19910	.19063	.17733	.16055	.14204	.12353	.10626	.09086
3.25	.15299	.15116	.14586	.13764	.12724	.11545	.10304	.09078	.07924
3.50	.10850	.10761	.10512	.10141	.09673	.09097	.08404	.07626	.06821
3.75	.06753	.06747	.06748	.06790	.06860	.06849	.06655	.06280	.05788
4.00	.02924	.02991	.03216	.03646	.04247	.04793	.05065	.05050	.04833
4.25	-.00704	-.00575	-.00154	.00645	.01807	.02935	.03644	.03943	.03963
4.50	-.04185	-.04007	-.03423	-.02286	-.00486	.01299	.02405	.02966	.03182
4.75	-.07562	-.07349	-.06649	-.05240	-.02652	-.00060	.01364	.02124	.02493
5.00	-.10867	-.10635	-.09875	-.08335	-.04706	-.01062	.00533	.01417	.01896
5.25	-.09489	-.09254	-.08492	-.07001	-.04349	-.01671	-.00095	.00840	.01388
5.50	-.08289	-.08062	-.07344	-.06017	-.04014	-.01978	-.00543	.00382	.00962
5.75	-.07250	-.07042	-.06394	-.05263	-.03702	-.02103	-.00849	.00027	.00611
6.00	-.06357	-.06171	-.05605	-.04656	-.03413	-.02127	-.01047	-.00240	.00327
6.25	-.05592	-.05429	-.04943	-.04153	-.03146	-.02094	-.01168	-.00438	.00100
6.50	-.04935	-.04796	-.04383	-.03725	-.02899	-.02028	-.01235	-.00582	-.00079
6.75	-.04373	-.04254	-.03905	-.03357	-.02673	-.01945	-.01263	-.00682	-.00218
7.00	-.03890	-.03789	-.03495	-.03036	-.02465	-.01852	-.01264	-.00749	-.00325
7.25	-.03473	-.03388	-.03140	-.02755	-.02275	-.01755	-.01247	-.00791	-.00406
7.50	-.03113	-.03041	-.02832	-.02507	-.02102	-.01657	-.01218	-.00814	-.00465
7.75	-.02800	-.02739	-.02563	-.02288	-.01943	-.01562	-.01180	-.00823	-.00507
8.00	-.02528	-.02476	-.02326	-.02092	-.01798	-.01470	-.01137	-.00820	-.00536
8.25	-.02290	-.02246	-.02118	-.01918	-.01666	-.01382	-.01091	-.00810	-.00554
8.50	-.02080	-.02043	-.01933	-.01762	-.01545	-.01299	-.01043	-.00794	-.00563
8.75	-.01896	-.01864	-.01770	-.01622	-.01434	-.01220	-.00995	-.00774	-.00566
9.00	-.01733	-.01705	-.01624	-.01497	-.01333	-.01146	-.00948	-.00751	-.00563
9.25	-.01588	-.01564	-.01494	-.01383	-.01241	-.01077	-.00902	-.00726	-.00557
9.50	-.01459	-.01438	-.01377	-.01281	-.01156	-.01012	-.00857	-.00700	-.00547
9.75	-.01343	-.01325	-.01272	-.01188	-.01079	-.00951	-.00814	-.00673	-.00535
10.00	-.01240	-.01224	-.01178	-.01104	-.01008	-.00895	-.00773	-.00646	-.00522
10.50	-.01063	-.01051	-.01015	-.00958	-.00883	-.00794	-.00696	-.00594	-.00492
11.00	-.00918	-.00909	-.00881	-.00836	-.00777	-.00705	-.00627	-.00544	-.00460
11.50	-.00799	-.00791	-.00769	-.00734	-.00686	-.00629	-.00565	-.00498	-.00428
12.00	-.00700	-.00694	-.00676	-.00647	-.00609	-.00563	-.00511	-.00455	-.00397
13.00	-.00545	-.00542	-.00530	-.00511	-.00485	-.00454	-.00419	-.00380	-.00339
14.00	-.00178	-.00431	-.00423	-.00410	-.00393	-.00371	-.00346	-.00319	-.00290
15.00	-.00144	-.00349	-.00343	-.00334	-.00322	-.00306	-.00289	-.00269	-.00248

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, l$									
.00	1.00000	.98768	.93953	.80913	.52969	.24925	.11557	.06077	.03582
.25	1.00064	.98860	.94165	.81391	.52972	.24454	.11353	.06002	.03550
.50	1.00251	.99127	.94787	.82871	.52980	.22991	.10759	.05781	.03459
.75	1.00549	.99550	.95765	.85449	.52993	.20444	.09824	.05433	.03312
1.00	1.00941	1.00097	.97009	.89079	.53011	.16855	.08639	.04987	.03120
1.25	.41868	.41194	.38862	.33758	.23266	.12692	.07323	.04477	.02894
1.50	-.06267	-.06771	-.08379	-.10918	-.01029	-.08783	-.06004	-.03937	-.02646
1.75	-.05735	-.06085	-.07072	-.07825	-.00999	-.05758	-.04790	-.03401	-.02387
2.00	-.05201	-.05421	-.05927	-.05692	-.00967	-.03698	-.03744	-.02892	-.02127
2.25	-.04683	-.04799	-.04964	-.04285	-.00931	-.02370	-.02885	-.02429	-.01877
2.50	-.04192	-.04231	-.04175	-.03349	-.00894	-.01515	-.02203	-.02019	-.01640
2.75	-.03736	-.03723	-.03536	-.02707	-.00856	-.00956	-.01670	-.01665	-.01422
3.00	-.03321	-.03274	-.03019	-.02249	-.00817	-.00582	-.01259	-.01363	-.01225
3.25	-.02947	-.02880	-.02599	-.01909	-.00778	-.00327	-.00942	-.01110	-.01049
3.50	-.02614	-.02538	-.02254	-.01649	-.00739	-.00150	-.00698	-.00898	-.00893
3.75	-.02318	-.02240	-.01970	-.01443	-.00701	-.00026	-.00510	-.00723	-.00757
4.00	-.02058	-.01982	-.01732	-.01276	-.00663	-.00061	-.00364	-.00578	-.00639
4.25	-.01829	-.01758	-.01531	-.01138	-.00627	-.00122	-.00251	-.00459	-.00536
4.50	-.01629	-.01563	-.01361	-.01022	-.00591	-.00165	-.00163	-.00360	-.00448
Nondimensional coil parameters: $\beta, \gamma, \alpha, l$									
.00	1.00000	.98530	.93061	.79693	.53980	.28131	.14320	.07962	.04843
.25	1.00077	.98634	.93270	.80088	.53984	.27745	.14122	.07878	.04805
.50	1.00304	.98940	.93890	.81312	.53995	.26546	.13538	.07632	.04694
.75	1.00668	.99436	.94884	.83464	.54013	.24435	.12601	.07239	.04516
1.00	1.01151	1.00075	.96190	.86584	.54038	.21370	.11373	.06725	.04280
1.25	.65951	.65058	.61936	.54694	.36179	.17552	.09946	.06121	.03997
1.50	.37364	.36662	.34330	.29631	.21599	.13464	.08432	.05466	.03683
1.75	.13334	.12817	.11227	.08809	.09282	.09661	.06944	.04793	.03349
2.00	-.07376	-.07726	-.08681	-.09390	-.01377	-.06550	-.05576	-.04136	-.03010
2.25	-.06684	-.06894	-.07351	-.07012	-.01329	-.04280	-.04388	-.03518	-.02676
2.50	-.06018	-.06118	-.06217	-.05365	-.01277	-.02745	-.03400	-.02957	-.02356
2.75	-.05391	-.05409	-.05273	-.04241	-.01224	-.01737	-.02604	-.02460	-.02057
3.00	-.04812	-.04774	-.04499	-.03458	-.01170	-.01072	-.01977	-.02029	-.01782
3.25	-.04285	-.04211	-.03865	-.02895	-.01115	-.00627	-.01488	-.01662	-.01533
3.50	-.03810	-.03716	-.03345	-.02474	-.01061	-.00323	-.01108	-.01352	-.01311
3.75	-.03386	-.03283	-.02915	-.02148	-.01007	-.00112	-.00815	-.01093	-.01116
4.00	-.03010	-.02907	-.02557	-.01889	-.00953	-.00034	-.00587	-.00877	-.00944
4.25	-.02678	-.02579	-.02257	-.01678	-.00902	-.00137	-.00410	-.00699	-.00795
4.50	-.02386	-.02293	-.02002	-.01501	-.00852	-.00209	-.00273	-.00551	-.00666
4.75	-.02129	-.02045	-.01784	-.01352	-.00804	-.00259	-.00166	-.00430	-.00555
5.00	-.01904	-.01828	-.01597	-.01224	-.00757	-.00292	-.00083	-.00329	-.00459
5.25	-.01707	-.01638	-.01435	-.01112	-.00713	-.00313	-.00018	-.00247	-.00378
5.50	-.01533	-.01473	-.01294	-.01014	-.00671	-.00325	-.00032	-.00179	-.00307
5.75	-.01380	-.01327	-.01171	-.00928	-.00632	-.00330	-.00070	-.00123	-.00248
6.00	-.01246	-.01199	-.01062	-.00851	-.00594	-.00331	-.00100	-.00077	-.00197

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, \lambda$									
.00	1.00000	.98266	.92209	.78975	.55927	.32670	.18764	.11403	.07359
.25	1.00093	.98381	.92404	.79286	.55932	.32372	.18587	.11315	.07314
.50	1.00366	.98721	.92981	.80249	.55949	.31446	.18061	.11055	.07181
.75	1.00810	.99273	.93922	.81943	.55977	.29814	.17203	.10635	.06965
1.00	1.01409	1.00013	.95188	.84418	.56015	.27424	.16051	.10071	.06675
1.25	.78326	.77100	.72910	.63765	.44156	.24370	.14659	.09391	.06322
1.50	.59706	.58667	.55179	.47888	.34485	.20916	.13099	.08622	.05917
1.75	.44170	.43325	.40563	.35139	.26324	.17357	.11452	.07796	.05476
2.00	.30883	.30230	.28173	.24488	.19270	.13915	.09797	.06946	.05013
2.25	.19298	.18824	.17417	.15270	.13063	.10733	.08202	.06101	.04541
2.50	.09035	.08721	.07879	.07026	.07523	.07911	.06723	.05287	.04072
2.75	-.00182	-.00359	-.00737	-.00584	.02523	.05536	.05401	.04524	.03618
3.00	-.08555	-.08623	-.08645	-.07813	-.02032	.03668	.04258	.03826	.03186
3.25	-.07699	-.07683	-.07453	-.06260	-.01943	.02307	.03300	.03201	.02784
3.50	-.06906	-.06831	-.06441	-.05130	-.01853	.01369	.02518	.02652	.02414
3.75	-.06181	-.06067	-.05589	-.04307	-.01763	.00736	.01892	.02177	.02079
4.00	-.05524	-.05389	-.04876	-.03692	-.01675	.00309	.01397	.01772	.01779
4.25	-.04935	-.04790	-.04279	-.03218	-.01588	.00017	.01009	.01430	.01513
4.50	-.04409	-.04264	-.03776	-.02841	-.01503	-.00183	.00706	.01142	.01279
4.75	-.03942	-.03802	-.03350	-.02533	-.01421	-.00321	.00469	.00903	.01075
5.00	-.03529	-.03398	-.02986	-.02275	-.01342	-.00415	.00285	.00703	.00897
5.25	-.03164	-.03043	-.02673	-.02056	-.01267	-.00477	.00142	.00538	.00743
5.50	-.02841	-.02732	-.02403	-.01867	-.01194	-.00518	.00031	.00402	.00611
5.75	-.02557	-.02459	-.02168	-.01702	-.01125	-.00542	-.00054	.00289	.00497
6.00	-.02306	-.02219	-.01962	-.01557	-.01060	-.00553	-.00121	.00197	.00400
6.25	-.02084	-.02007	-.01781	-.01429	-.00998	-.00556	-.00171	.00120	.00316
6.50	-.01888	-.01820	-.01621	-.01314	-.00939	-.00553	-.00209	.00058	.00245
6.75	-.01714	-.01654	-.01480	-.01211	-.00884	-.00544	-.00238	.00007	.00184
7.00	-.01560	-.01507	-.01354	-.01119	-.00832	-.00533	-.00258	-.00033	.00133
7.25	-.01422	-.01376	-.01241	-.01035	-.00783	-.00518	-.00273	-.00067	.00089
7.50	-.01300	-.01259	-.01141	-.00959	-.00737	-.00503	-.00282	-.00094	.00052
7.75	-.01191	-.01155	-.01050	-.00890	-.00695	-.00486	-.00287	-.00115	.00021
8.00	-.01093	-.01061	-.00969	-.00828	-.00654	-.00468	-.00289	-.00132	-.00004
8.25	-.01005	-.00977	-.00896	-.00771	-.00617	-.00450	-.00289	-.00145	-.00026
8.50	-.00926	-.00901	-.00829	-.00719	-.00549	-.00433	-.00287	-.00155	-.00045
8.75	-.00855	-.00833	-.00769	-.00671	-.00518	-.00398	-.00278	-.00163	-.00060
9.00	-.00791	-.00771	-.00715	-.00627	-.00518	-.00398	-.00278	-.00168	-.00072

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; \alpha, 4$									
.00	1.00000	.98174	.91990	.79135	.57630	.35854	.22133	.14308	.09685
.25	1.00098	.98291	.92172	.79407	.57637	.35598	.21972	.14222	.09638
.50	1.00390	.98638	.92712	.80251	.57659	.34802	.21495	.13968	.09498
.75	1.00866	.99203	.93596	.81733	.57696	.33400	.20714	.13554	.09269
1.00	1.01512	.99970	.94794	.83897	.57746	.31346	.19658	.12996	.08959
1.25	.82480	.81083	.76431	.66839	.47894	.28712	.18368	.12313	.08576
1.50	.67206	.65970	.61906	.53802	.39868	.25712	.16902	.11528	.08132
1.75	.54539	.53475	.50029	.43423	.33105	.22579	.15319	.10666	.07639
2.00	.43782	.42894	.40065	.34861	.27268	.19482	.13680	.09755	.07110
2.25	.34477	.33761	.31525	.27588	.22138	.16515	.12035	.08820	.06558
2.50	.26302	.25749	.24068	.21256	.17568	.13724	.10428	.07883	.05995
2.75	.19024	.18622	.17444	.15627	.13451	.11136	.08893	.06966	.05433
3.00	.12465	.12198	.11467	.10525	.09706	.08766	.07455	.06085	.04882
3.25	.06490	.06340	.05993	.05811	.06274	.06633	.06136	.05255	.04350
3.50	.00992	.00941	.00911	.01364	.03107	.04763	.04953	.04488	.03845
3.75	-.04113	-.04086	-.03867	-.02927	-.00169	.03191	.03917	.03790	.03372
4.00	-.08892	-.08805	-.08406	-.07155	-.02572	.01952	.03031	.03165	.02935
4.25	-.08010	-.07880	-.07365	-.05983	-.02447	.01042	.02293	.02614	.02536
4.50	-.07203	-.07048	-.06470	-.05094	-.02324	.00411	.01691	.02135	.02176
4.75	-.06473	-.06303	-.05706	-.04417	-.02204	-.00015	.01208	.01724	.01854
5.00	-.05814	-.05641	-.05055	-.03887	-.02087	-.00303	.00825	.01374	.01568
5.25	-.05224	-.05054	-.04499	-.03461	-.01975	-.00496	.00524	.01078	.01316
5.50	-.04698	-.04536	-.04022	-.03109	-.01866	-.00625	.00289	.00831	.01096
5.75	-.04229	-.04079	-.03611	-.02812	-.01762	-.00709	.00106	.00625	.00904
6.00	-.03813	-.03675	-.03255	-.02557	-.01663	-.00761	-.00035	.00454	.00738
6.25	-.03444	-.03319	-.02944	-.02335	-.01568	-.00791	-.00144	.00312	.00595
6.50	-.03116	-.03004	-.02671	-.02140	-.01479	-.00804	-.00228	.00195	.00471
6.75	-.02825	-.02725	-.02431	-.01967	-.01394	-.00805	-.00291	.00099	.00366
7.00	-.02567	-.02478	-.02218	-.01812	-.01313	-.00798	-.00339	.00021	.00276
7.25	-.02337	-.02258	-.02029	-.01673	-.01238	-.00784	-.00373	-.00042	.00199
7.50	-.02132	-.02063	-.01861	-.01549	-.01166	-.00766	-.00398	-.00094	.00133
7.75	-.01949	-.01888	-.01710	-.01436	-.01099	-.00745	-.00414	-.00136	.00078
8.00	-.01786	-.01732	-.01575	-.01333	-.01036	-.00721	-.00424	-.00169	.00031
8.25	-.01640	-.01592	-.01453	-.01240	-.00977	-.00697	-.00429	-.00196	-.00007
8.50	-.01509	-.01466	-.01343	-.01154	-.00922	-.00671	-.00430	-.00216	-.00041
8.75	-.01390	-.01353	-.01244	-.01077	-.00870	-.00646	-.00427	-.00232	-.00068
9.00	-.01284	-.01251	-.01154	-.01005	-.00821	-.00620	-.00423	-.00243	-.00091
9.25	-.01188	-.01158	-.01073	-.00940	-.00775	-.00595	-.00416	-.00252	-.00110
9.50	-.01101	-.01075	-.00998	-.00880	-.00733	-.00570	-.00408	-.00257	-.00125
9.75	-.01022	-.00999	-.00930	-.00825	-.00693	-.00546	-.00399	-.00260	-.00138
10.00	-.00950	-.00929	-.00869	-.00774	-.00655	-.00523	-.00389	-.00261	-.00148
10.50	-.00826	-.00809	-.00760	-.00684	-.00587	-.00479	-.00367	-.00260	-.00162
11.00	-.00722	-.00708	-.00668	-.00606	-.00528	-.00438	-.00345	-.00254	-.00169
11.50	-.00634	-.00623	-.00591	-.00540	-.00475	-.00401	-.00322	-.00245	-.00172
12.00	-.00560	-.00551	-.00524	-.00483	-.00429	-.00367	-.00301	-.00235	-.00171

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; \alpha, 5$									
.00	1.00000	.98157	.92011	.79534	.59050	.38245	.24751	.16713	.11738
.25	1.00100	.98273	.92183	.79785	.59059	.38013	.24603	.16631	.11691
.50	1.00395	.98618	.92697	.80564	.59085	.37291	.24160	.16387	.11550
.75	1.00880	.99181	.93539	.81929	.59129	.36020	.23435	.15989	.11320
1.00	1.01541	.99947	.94684	.83922	.59188	.34156	.22452	.15449	.11006
1.25	.84504	.83037	.78234	.68620	.50336	.31765	.21249	.14785	.10617
1.50	.70875	.69550	.65261	.56953	.43131	.29036	.19873	.14017	.10163
1.75	.59618	.58444	.54695	.47697	.37067	.26180	.18379	.13167	.09653
2.00	.50106	.49087	.45878	.40097	.31840	.23344	.16817	.12257	.09100
2.25	.41926	.41061	.38372	.33680	.27255	.20609	.15231	.11309	.08514
2.50	.34789	.34071	.31872	.28138	.23176	.18012	.13655	.10343	.07908
2.75	.28483	.27905	.26157	.23265	.19507	.15568	.12115	.09377	.07291
3.00	.22850	.22400	.21064	.18913	.16177	.13279	.10630	.08424	.06673
3.25	.17763	.17432	.16468	.14974	.13131	.11145	.09215	.07499	.06063
3.50	.13125	.12900	.12270	.11365	.10326	.09162	.07881	.06611	.05469
3.75	.08856	.08725	.08392	.08017	.07727	.07331	.06638	.05770	.04896
4.00	.04892	.04843	.04768	.04872	.05308	.05655	.05493	.04983	.04351
4.25	.01180	.01201	.01346	.01874	.03045	.04142	.04455	.04256	.03837
4.50	- .02322	- .02245	- .01920	- .01033	- .00919	- .02812	- .03530	- .03592	.03358
4.75	- .05650	- .05529	- .05068	- .03907	- .01085	- .01691	- .02723	- .02995	.02917
5.00	- .08831	- .08679	- .08124	- .06802	- .02982	- .00805	- .02035	- .02465	.02514
5.25	- .07985	- .07812	- .07205	- .05838	- .02830	- .00155	- .01462	- .02000	.02149
5.50	- .07213	- .07030	- .06405	- .05087	- .02683	- .00292	- .00994	- .01597	.01822
5.75	- .06515	- .06329	- .05714	- .04495	- .02541	- .00591	- .00620	- .01251	.01531
6.00	- .05885	- .05704	- .05117	- .04019	- .02404	- .00787	- .00323	- .00958	.01274
6.25	- .05320	- .05147	- .04601	- .03625	- .02273	- .00912	- .00091	- .00711	.01048
6.50	- .04814	- .04653	- .04153	- .03292	- .02147	- .00990	- .00088	- .00505	.00851
6.75	- .04362	- .04213	- .03761	- .03006	- .02028	- .01034	- .00227	- .00333	.00681
7.00	- .03958	- .03823	- .03418	- .02755	- .01914	- .01055	- .00333	- .00191	.00533
7.25	- .03598	- .03477	- .03115	- .02534	- .01807	- .01058	- .00413	- .00074	.00406
7.50	- .03277	- .03168	- .02847	- .02338	- .01705	- .01050	- .00472	- .00021	.00297
7.75	- .02991	- .02893	- .02608	- .02161	- .01609	- .01033	- .00515	- .00099	.00204
8.00	- .02734	- .02648	- .02396	- .02003	- .01518	- .01010	- .00545	- .00162	.00125
8.25	- .02505	- .02428	- .02205	- .01859	- .01433	- .00983	- .00564	- .00213	.00058
8.50	- .02300	- .02232	- .02034	- .01729	- .01352	- .00952	- .00576	- .00253	.00001
8.75	- .02115	- .02055	- .01880	- .01610	- .01277	- .00921	- .00581	- .00285	- .00046
9.00	- .01949	- .01896	- .01741	- .01501	- .01206	- .00888	- .00581	- .00309	- .00086
9.25	- .01800	- .01752	- .01614	- .01402	- .01139	- .00854	- .00577	- .00328	- .00119
9.50	- .01665	- .01622	- .01500	- .01311	- .01077	- .00821	- .00570	- .00341	- .00147
9.75	- .01542	- .01505	- .01396	- .01228	- .01018	- .00788	- .00560	- .00350	- .00169
10.00	- .01432	- .01398	- .01301	- .01151	- .00963	- .00756	- .00549	- .00356	- .00187
10.50	- .01239	- .01213	- .01135	- .01015	- .00863	- .00694	- .00523	- .00360	- .00214
11.00	- .01080	- .01058	- .00996	- .00899	- .00775	- .00636	- .00494	- .00355	- .00229
11.50	- .00946	- .00929	- .00878	- .00799	- .00698	- .00583	- .00463	- .00346	- .00237
12.00	- .00833	- .00819	- .00778	- .00713	- .00630	- .00534	- .00434	- .00334	- .00239
13.00	- .00656	- .00647	- .00619	- .00574	- .00516	- .00449	- .00377	- .00304	- .00233
14.00	- .00526	- .00519	- .00499	- .00468	- .00427	- .00379	- .00326	- .00272	- .00218
15.00	- .00428	- .00423	- .00409	- .00386	- .00357	- .00321	- .00282	- .00242	- .00200

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 1.5$									
.00	1.00000	.99443	.96999	.87736	.51123	.14472	.05087	.02392	.01339
.25	1.00010	.99460	.97054	.88007	.51123	.14202	.05034	.02378	.01334
.50	1.00041	.99508	.97214	.88805	.51124	.13407	.04878	.02336	.01319
.75	1.00090	.99587	.97467	.90075	.51126	.12141	.04630	.02268	.01295
1.00	1.00157	.99693	.97795	.91700	.51128	.10521	.04311	.02178	.01262
1.25	.43538	.43119	.41475	.36800	.22781	.08727	.03940	.02069	.01221
1.50	-.02695	-.03063	-.04443	-.07758	-.00380	.06965	.03542	.01947	.01174
1.75	-.02588	-.02905	-.04025	-.06184	-.00375	.05401	.03139	.01814	.01122
2.00	-.02473	-.02739	-.03617	-.04889	-.00370	.04118	.02748	.01677	.01065
2.25	-.02353	-.02570	-.03233	-.03877	-.00365	.03118	.02382	.01538	.01006
2.50	-.02228	-.02401	-.02881	-.03106	-.00359	.02361	.02049	.01402	.00945
2.75	-.02103	-.02235	-.02564	-.02525	-.00353	.01794	.01752	.01270	.00884
3.00	-.01978	-.02075	-.02283	-.02086	-.00346	.01370	.01492	.01145	.00823
3.25	-.01855	-.01923	-.02036	-.01750	-.00339	.01051	.01267	.01028	.00763
3.50	-.01735	-.01779	-.01820	-.01491	-.00331	.00808	.01074	.00919	.00705
3.75	-.01620	-.01644	-.01632	-.01288	-.00324	.00622	.00909	.00820	.00649
4.00	-.01510	-.01518	-.01468	-.01126	-.00316	.00477	.00768	.00729	.00596
4.25	-.01406	-.01402	-.01326	-.00995	-.00308	.00365	.00649	.00647	.00546
4.50	-.01308	-.01294	-.01201	-.00888	-.00299	.00275	.00547	.00573	.00499
Nondimensional coil parameters: $\beta, 5; \alpha, 2$									
.00	1.00000	.99273	.96202	.85765	.51547	.17277	.06672	.03253	.01851
.25	1.00013	.99294	.96264	.86012	.51547	.17032	.06611	.03236	.01845
.50	1.00053	.99356	.96446	.86744	.51549	.16303	.06434	.03183	.01825
.75	1.00118	.99456	.96739	.87934	.51551	.15119	.06150	.03098	.01793
1.00	1.00206	.99591	.97123	.89514	.51555	.13546	.05777	.02984	.01750
1.25	.66770	.66211	.64033	.57820	.34786	.11705	.05336	.02845	.01696
1.50	.39490	.38992	.37127	.32371	.21088	.09758	.04852	.02688	.01633
1.75	.16459	.16026	.14477	.11095	.09507	.07874	.04349	.02516	.01563
2.00	-.03461	-.03829	-.05074	-.07278	-.00523	.06189	.03849	.02336	.01488
2.25	-.03298	-.03603	-.04570	-.05850	-.00515	.04779	.03369	.02152	.01408
2.50	-.03129	-.03376	-.04096	-.04707	-.00507	.03654	.02922	.01969	.01326
2.75	-.02959	-.03151	-.03662	-.03819	-.00498	.02786	.02517	.01791	.01242
3.00	-.02788	-.02932	-.03272	-.03138	-.00489	.02127	.02155	.01621	.01159
3.25	-.02619	-.02723	-.02924	-.02616	-.00479	.01628	.01838	.01460	.01077
3.50	-.02454	-.02523	-.02617	-.02214	-.00468	.01249	.01563	.01309	.00997
3.75	-.02295	-.02335	-.02348	-.01901	-.00458	.00959	.01326	.01170	.00920
4.00	-.02142	-.02160	-.02113	-.01653	-.00446	.00736	.01123	.01043	.00846
4.25	-.01997	-.01996	-.01907	-.01454	-.00435	.00562	.00950	.00928	.00776
4.50	-.01859	-.01845	-.01727	-.01292	-.00424	.00425	.00802	.00823	.00710
4.75	-.01729	-.01705	-.01570	-.01159	-.00412	.00317	.00677	.00728	.00648
5.00	-.01608	-.01576	-.01431	-.01047	-.00400	.00231	.00569	.00644	.00591
5.25	-.01494	-.01458	-.01308	-.00953	-.00389	.00162	.00478	.00568	.00537
5.50	-.01389	-.01350	-.01200	-.00872	-.00377	.00106	.00400	.00500	.00488
5.75	-.01291	-.01250	-.01103	-.00802	-.00365	.00061	.00333	.00440	.00442
6.00	-.01200	-.01159	-.01017	-.00741	-.00354	.00024	.00276	.00386	.00400

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5, \alpha, 3$									
.00	1.00000	.98985	.94979	.83402	.52464	.21442	.09593	.05036	.02976
.25	1.00019	.99013	.95046	.83607	.52464	.21239	.09528	.05013	.02966
.50	1.00075	.99094	.95246	.84220	.52467	.20632	.09337	.04946	.02939
.75	1.00168	.99227	.95570	.85228	.52471	.19633	.09026	.04836	.02893
1.00	1.00294	.99408	.96004	.86598	.52476	.18276	.08610	.04687	.02831
1.25	.78759	.77938	.74839	.66572	.41637	.16625	.08105	.04504	.02754
1.50	.61220	.60473	.57716	.50717	.32783	.14774	.07531	.04292	.02663
1.75	.46443	.45776	.43382	.37698	.25300	.12830	.06912	.04057	.02561
2.00	.33690	.33107	.31081	.26681	.18821	.10891	.06268	.03805	.02449
2.25	.22483	.21984	.20317	.17108	.13108	.09042	.05621	.03544	.02330
2.50	.12495	.12078	.10749	.08589	.08000	.07349	.04988	.03277	.02206
2.75	.03491	.03151	.02131	.00847	.03382	.05858	.04386	.03012	.02078
3.00	-.04703	-.04972	-.05720	-.06315	-.00832	.04596	.03826	.02752	.01949
3.25	-.04438	-.04644	-.05158	-.05248	-.00815	.03565	.03313	.02501	.01821
3.50	-.04177	-.04326	-.04646	-.04391	-.00798	.02746	.02853	.02263	.01694
3.75	-.03921	-.04023	-.04186	-.03712	-.00780	.02108	.02445	.02038	.01571
4.00	-.03674	-.03734	-.03775	-.03178	-.00762	.01614	.02087	.01829	.01452
4.25	-.03436	-.03463	-.03410	-.02754	-.00743	.01231	.01775	.01636	.01338
4.50	-.03209	-.03209	-.03088	-.02416	-.00724	.00934	.01506	.01459	.01229
4.75	-.02993	-.02973	-.02803	-.02142	-.00705	.00702	.01275	.01297	.01126
5.00	-.02790	-.02754	-.02552	-.01917	-.00685	.00520	.01076	.01151	.01030
5.25	-.02598	-.02551	-.02330	-.01729	-.00666	.00375	.00906	.01019	.00939
5.50	-.02419	-.02363	-.02133	-.01572	-.00646	.00259	.00761	.00900	.00855
5.75	-.02252	-.02191	-.01958	-.01437	-.00626	.00166	.00636	.00794	.00777
6.00	-.02096	-.02032	-.01802	-.01321	-.00607	.00091	.00529	.00698	.00705
6.25	-.01951	-.01886	-.01663	-.01220	-.00588	.00031	.00438	.00613	.00638
6.50	-.01816	-.01753	-.01537	-.01131	-.00569	-.00017	.00359	.00537	.00577
6.75	-.01692	-.01629	-.01425	-.01052	-.00550	-.00056	.00292	.00469	.00520
7.00	-.01577	-.01516	-.01323	-.00982	-.00532	-.00088	.00234	.00408	.00469
7.25	-.01470	-.01412	-.01231	-.00919	-.00514	-.00114	.00184	.00354	.00422
7.50	-.01372	-.01317	-.01147	-.00861	-.00496	-.00135	.00141	.00306	.00378
7.75	-.01281	-.01229	-.01071	-.00809	-.00479	-.00151	.00104	.00263	.00339
8.00	-.01197	-.01148	-.01001	-.00762	-.00462	-.00164	.00072	.00225	.00303
8.25	-.01119	-.01074	-.00937	-.00718	-.00446	-.00174	.00045	.00192	.00270
8.50	-.01047	-.01005	-.00879	-.00678	-.00430	-.00182	.00022	.00162	.00240
8.75	-.00981	-.00942	-.00825	-.00641	-.00415	-.00188	.00001	.00135	.00213
9.00	-.00920	-.00883	-.00775	-.00606	-.00400	-.00192	-.00015	.00111	.00188

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 4$									
.00	1.00000	.98782	.94211	.82261	.53405	.24433	.12101	.06773	.04160
.25	1.00023	.98813	.94279	.82440	.53407	.24256	.12037	.06748	.04148
.50	1.00092	.98906	.94479	.82977	.53410	.23727	.11848	.06673	.04115
.75	1.00205	.99059	.94805	.83864	.53416	.22853	.11541	.06551	.04060
1.00	1.00360	.99268	.95246	.85074	.53423	.21661	.11124	.06383	.03984
1.25	.82912	.81886	.78148	.68917	.44613	.20198	.10612	.06176	.03889
1.50	.68727	.67777	.64362	.56192	.37417	.18536	.10022	.05933	.03777
1.75	.56801	.55935	.52870	.45819	.31338	.16753	.09370	.05660	.03649
2.00	.46533	.45755	.43056	.37128	.26075	.14923	.08676	.05363	.03509
2.25	.37532	.36845	.34517	.29674	.21437	.13105	.07958	.05048	.03357
2.50	.29530	.28935	.26971	.23149	.17291	.11343	.07233	.04723	.03197
2.75	.22336	.21831	.20217	.17334	.13544	.09669	.06515	.04391	.03032
3.00	.15807	.15387	.14100	.12063	.10127	.08110	.05819	.04059	.02862
3.25	.09832	.09493	.08506	.07211	.06987	.06687	.05155	.03732	.02691
3.50	.04327	.04061	.03341	.02677	.04082	.05416	.04532	.03414	.02520
3.75	-.00778	-.00977	-.01464	-.01617	-.01380	.04312	.03957	.03108	.02351
4.00	-.05537	-.05677	-.05967	-.05729	-.01145	.03379	.03432	.02816	.02186
4.25	-.05203	-.05292	-.05418	-.04905	-.01118	.02615	.02960	.02542	.02026
4.50	-.04880	-.04927	-.04921	-.04231	-.01090	.02001	.02540	.02285	.01872
4.75	-.04570	-.04581	-.04474	-.03686	-.01062	.01517	.02169	.02048	.01725
5.00	-.04274	-.04257	-.04074	-.03245	-.01033	.01137	.01845	.01829	.01585
5.25	-.03993	-.03954	-.03716	-.02885	-.01005	.00839	.01564	.01628	.01452
5.50	-.03728	-.03671	-.03398	-.02589	-.00976	.00605	.01320	.01446	.01328
5.75	-.03478	-.03409	-.03114	-.02342	-.00948	.00419	.01109	.01281	.01211
6.00	-.03244	-.03166	-.02860	-.02134	-.00919	.00272	.00928	.01132	.01103
6.25	-.03025	-.02942	-.02634	-.01956	-.00891	.00154	.00773	.00997	.01002
6.50	-.02821	-.02735	-.02431	-.01803	-.00863	.00059	.00639	.00877	.00908
6.75	-.02631	-.02544	-.02248	-.01668	-.00835	-.00016	.00523	.00768	.00822
7.00	-.02454	-.02368	-.02084	-.01550	-.00808	-.00077	.00425	.00671	.00743
7.25	-.02290	-.02206	-.01936	-.01445	-.00781	-.00126	.00339	.00585	.00669
7.50	-.02138	-.02057	-.01801	-.01351	-.00755	-.00166	.00266	.00508	.00602
7.75	-.01997	-.01920	-.01679	-.01266	-.00729	-.00197	.00203	.00439	.00541
8.00	-.01866	-.01793	-.01568	-.01189	-.00704	-.00222	.00149	.00377	.00484
8.25	-.01745	-.01676	-.01466	-.01119	-.00680	-.00242	.00102	.00322	.00433
8.50	-.01633	-.01569	-.01373	-.01055	-.00656	-.00258	.00062	.00273	.00386
8.75	-.01530	-.01469	-.01288	-.00996	-.00633	-.00269	.00028	.00230	.00343
9.00	-.01434	-.01378	-.01209	-.00941	-.00611	-.00278	-.00001	.00191	.00304
9.25	-.01345	-.01293	-.01137	-.00891	-.00589	-.00284	-.00026	.00157	.00269
9.50	-.01263	-.01214	-.01070	-.00844	-.00568	-.00287	-.00048	.00126	.00236
9.75	-.01187	-.01142	-.01008	-.00801	-.00548	-.00290	-.00067	.00099	.00207
10.00	-.01116	-.01074	-.00951	-.00760	-.00528	-.00290	-.00082	.00075	.00180
10.50	-.00990	-.00954	-.00849	-.00687	-.00491	-.00288	-.00107	.00034	.00134
11.00	-.00881	-.00850	-.00760	-.00623	-.00456	-.00282	-.00124	.00003	.00095
11.50	-.00787	-.00760	-.00683	-.00566	-.00423	-.00274	-.00136	-.00021	.00064
12.00	-.00705	-.00682	-.00616	-.00516	-.00394	-.00264	-.00143	-.00040	-.00038

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta$ ; 5; $\alpha$ , 5									
.00	1.00000	.98652	.93767	.81746	.54316	.26735	.14227	.08390	.05338
.25	1.00026	.98686	.93833	.81910	.54317	.26575	.14166	.08364	.05326
.50	1.00102	.98785	.94028	.82400	.54322	.26095	.13984	.08286	.05288
.75	1.00229	.98949	.94348	.83208	.54329	.25302	.13687	.08159	.05227
1.00	1.00403	.99173	.94783	.84315	.54339	.24218	.13283	.07984	.05142
1.25	.85029	.83862	.79728	.70084	.46556	.22886	.12784	.07765	.05036
1.50	.72549	.71454	.67615	.58898	.40201	.21366	.12204	.07508	.04909
1.75	.62076	.61061	.57544	.49807	.34833	.19726	.11558	.07216	.04764
2.00	.53076	.52147	.48972	.42219	.30189	.18029	.10862	.06896	.04603
2.25	.45206	.44366	.41541	.35745	.26097	.16323	.10131	.06553	.04429
2.50	.38227	.37480	.35004	.30118	.22441	.14644	.09380	.06192	.04243
2.75	.31970	.31314	.29182	.25146	.19138	.13016	.08622	.05820	.04048
3.00	.26307	.25740	.23941	.20691	.16127	.11455	.07868	.05442	.03847
3.25	.21140	.20660	.19176	.16648	.13361	.09973	.07129	.05062	.03642
3.50	.16392	.15995	.14805	.12936	.10804	.08578	.06414	.04686	.03434
3.75	.12003	.11683	.10764	.09490	.08427	.07277	.05729	.04316	.03227
4.00	.07923	.07673	.06999	.06254	.06207	.06079	.05082	.03958	.03022
4.25	.04109	.03924	.03467	.03185	.04125	.04990	.04477	.03613	.02820
4.50	.00528	.00400	.00133	.00240	.02165	.04021	.03917	.03284	.02623
4.75	- .02848	- .02926	- .03032	- .02613	- .00313	- .03177	- .03405	- .02973	- .02432
5.00	- .06044	- .06079	- .06052	- .05401	- .01441	- .02461	- .02941	- .02681	- .02249
5.25	- .05671	- .05671	- .05536	- .04728	- .01403	- .01871	- .02526	- .02408	- .02073
5.50	- .05315	- .05285	- .05067	- .04169	- .01364	- .01395	- .02157	- .02156	- .01906
5.75	- .04977	- .04923	- .04643	- .03708	- .01326	- .01016	- .01832	- .01924	- .01749
6.00	- .04656	- .04584	- .04261	- .03326	- .01287	- .00716	- .01548	- .01711	- .01600
6.25	- .04354	- .04268	- .03917	- .03008	- .01249	- .00479	- .01300	- .01518	- .01460
6.50	- .04069	- .03974	- .03608	- .02741	- .01211	- .00292	- .01085	- .01342	- .01330
6.75	- .03802	- .03701	- .03330	- .02513	- .01173	- .00143	- .00899	- .01182	- .01209
7.00	- .03552	- .03448	- .03080	- .02316	- .01136	- .00025	- .00738	- .01039	- .01096
7.25	- .03319	- .03214	- .02855	- .02145	- .01100	- .00069	- .00600	- .00909	- .00992
7.50	- .03102	- .02998	- .02651	- .01995	- .01064	- .00144	- .00480	- .00793	- .00895
7.75	- .02900	- .02798	- .02467	- .01861	- .01029	- .00205	- .00378	- .00689	- .00807
8.00	- .02712	- .02613	- .02299	- .01742	- .00994	- .00253	- .00289	- .00596	- .00725
8.25	- .02537	- .02443	- .02147	- .01634	- .00960	- .00291	- .00213	- .00513	- .00650
8.50	- .02375	- .02285	- .02007	- .01536	- .00928	- .00321	- .00147	- .00438	- .00582
8.75	- .02225	- .02140	- .01880	- .01447	- .00896	- .00344	- .00091	- .00372	- .00519
9.00	- .02086	- .02006	- .01763	- .01365	- .00864	- .00362	- .00043	- .00313	- .00462
9.25	- .01956	- .01881	- .01655	- .01290	- .00834	- .00375	- .00001	- .00260	- .00409
9.50	- .01837	- .01766	- .01556	- .01221	- .00805	- .00384	- .00034	- .00213	- .00361
9.75	- .01725	- .01660	- .01465	- .01157	- .00776	- .00390	- .00064	- .00171	- .00318
10.00	- .01622	- .01561	- .01381	- .01097	- .00749	- .00394	- .00090	- .00134	- .00278
10.50	- .01437	- .01385	- .01230	- .00990	- .00696	- .00395	- .00131	- .00071	- .00209
11.00	- .01278	- .01232	- .01100	- .00896	- .00648	- .00390	- .00160	- .00022	- .00152
11.50	- .01140	- .01101	- .00988	- .00814	- .00602	- .00381	- .00180	- .00015	- .00105
12.00	- .01020	- .00986	- .00890	- .00741	- .00560	- .00369	- .00193	- .00045	- .00066
13.00	- .00824	- .00800	- .00728	- .00619	- .00485	- .00341	- .00205	- .00086	- .00009
14.00	- .00302	- .00656	- .00603	- .00521	- .00420	- .00311	- .00204	- .00108	- .00028
15.00	- .00251	- .00544	- .00504	- .00442	- .00366	- .00281	- .00197	- .00119	- .00052

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 10, \alpha, 1.5$									
.00	1.00000	.99845	.99114	.95418	.50287	.05146	.01419	.00624	.00340
.25	1.00001	.99846	.99119	.95471	.50287	.05093	.01414	.00623	.00340
.50	1.00003	.99850	.99134	.95624	.50287	.04940	.01399	.00620	.00339
.75	1.00006	.99856	.99159	.95867	.50287	.04698	.01375	.00615	.00337
1.00	1.00011	.99864	.99192	.96181	.50287	.04384	.01343	.00607	.00335
1.25	.44561	.44418	.43776	.41089	.22559	.04020	.01303	.00598	.00332
1.50	-.00743	-.00880	-.01487	-.03831	-.00096	.03630	.01256	.00587	.00328
1.75	-.00734	-.00866	-.01434	-.03435	-.00096	.03234	.01204	.00575	.00324
2.00	-.00725	-.00850	-.01377	-.03049	-.00095	.02850	.01148	.00561	.00319
2.25	-.00714	-.00832	-.01317	-.02688	-.00095	.02489	.01089	.00546	.00314
2.50	-.00702	-.00814	-.01254	-.02359	-.00095	.02161	.01028	.00530	.00308
2.75	-.00690	-.00794	-.01192	-.02066	-.00094	.01869	.00967	.00513	.00302
3.00	-.00676	-.00773	-.01129	-.01808	-.00094	.01612	.00906	.00495	.00295
3.25	-.00662	-.00751	-.01067	-.01584	-.00093	.01389	.00846	.00477	.00288
3.50	-.00648	-.00729	-.01007	-.01390	-.00093	.01197	.00788	.00458	.00281
3.75	-.00633	-.00707	-.00949	-.01225	-.00092	.01033	.00732	.00439	.00274
4.00	-.00617	-.00684	-.00894	-.01082	-.00091	.00892	.00678	.00421	.00266
4.25	-.00602	-.00661	-.00841	-.00961	-.00091	.00772	.00628	.00402	.00259
4.50	-.00586	-.00639	-.00791	-.00857	-.00090	.00669	.00580	.00383	.00251
Nondimensional coil parameters: $\beta, 10, \alpha, 2$									
.00	1.00000	.99787	.98796	.94079	.50401	.06710	.01949	.00868	.00476
.25	1.00001	.99789	.98802	.94137	.50401	.06651	.01943	.00867	.00475
.50	1.00004	.99793	.98822	.94310	.50401	.06478	.01924	.00863	.00474
.75	1.00009	.99802	.98854	.94587	.50401	.06202	.01892	.00856	.00471
1.00	1.00015	.99813	.98897	.94951	.50401	.05839	.01850	.00846	.00468
1.25	.67485	.67289	.66413	.62842	.34132	.05410	.01797	.00833	.00464
1.50	.40910	.40720	.39890	.36728	.20840	.04939	.01735	.00819	.00459
1.75	.18443	.18261	.17482	.14741	.09601	.04448	.01666	.00802	.00453
2.00	-.01015	-.01188	-.01913	-.04241	-.00134	.03960	.01592	.00783	.00447
2.25	-.01000	-.01164	-.01833	-.03772	-.00134	.03492	.01513	.00762	.00439
2.50	-.00984	-.01138	-.01749	-.03334	-.00133	.03056	.01431	.00740	.00431
2.75	-.00966	-.01111	-.01664	-.02936	-.00132	.02659	.01349	.00717	.00423
3.00	-.00948	-.01082	-.01579	-.02580	-.00132	.02305	.01266	.00692	.00414
3.25	-.00929	-.01053	-.01495	-.02267	-.00131	.01993	.01185	.00667	.00404
3.50	-.00909	-.01022	-.01413	-.01994	-.00130	.01722	.01105	.00642	.00394
3.75	-.00888	-.00991	-.01333	-.01758	-.00129	.01488	.01028	.00616	.00384
4.00	-.00866	-.00960	-.01257	-.01554	-.00128	.01287	.00954	.00590	.00374
4.25	-.00844	-.00928	-.01183	-.01380	-.00127	.01114	.00884	.00564	.00363
4.50	-.00822	-.00897	-.01114	-.01229	-.00126	.00966	.00818	.00538	.00352
4.75	-.00799	-.00866	-.01048	-.01100	-.00125	.00839	.00756	.00513	.00341
5.00	-.00777	-.00835	-.00986	-.00989	-.00124	.00730	.00697	.00488	.00330
5.25	-.00754	-.00805	-.00928	-.00893	-.00123	.00637	.00643	.00463	.00319
5.50	-.00731	-.00775	-.00874	-.00810	-.00122	.00556	.00592	.00440	.00307
5.75	-.00709	-.00746	-.00823	-.00737	-.00121	.00486	.00545	.00417	.00296
6.00	-.00686	-.00718	-.00776	-.00674	-.00120	.00426	.00501	.00395	.00286

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\alpha_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \text{IO}, \alpha, 3$									
.00	1.00000	.99661	.98141	.91766	.50664	.09540	.03094	.01424	.00790
.25	1.00002	.99664	.98150	.91828	.50664	.09478	.03085	.01422	.00790
.50	1.00006	.99672	.98177	.92012	.50664	.09294	.03058	.01415	.00787
.75	1.00014	.99684	.98222	.92310	.50664	.08997	.03014	.01404	.00784
1.00	1.00024	.99702	.98283	.92710	.50665	.08598	.02954	.01389	.00778
1.25	.79364	.79050	.77685	.72520	.40328	.08114	.02879	.01370	.00772
1.50	.62488	.62184	.60883	.56179	.31883	.07565	.02791	.01347	.00764
1.75	.48224	.47932	.46703	.42493	.24742	.06970	.02692	.01321	.00754
2.00	.35874	.35595	.34442	.30741	.18557	.06353	.02583	.01292	.00744
2.25	.24985	.24720	.23648	.20452	.13102	.05731	.02467	.01259	.00732
2.50	.15249	.14999	.14011	.11300	.08222	.05123	.02346	.01225	.00719
2.75	.06447	.06212	.05308	.03051	.03808	.04544	.02222	.01188	.00706
3.00	-.01585	-.01805	-.02624	-.04468	-.00222	.04004	.02096	.01150	.00691
3.25	-.01554	-.01757	-.02494	-.03970	-.00221	.03509	.01971	.01110	.00676
3.50	-.01521	-.01709	-.02365	-.03522	-.00220	.03064	.01847	.01069	.00660
3.75	-.01487	-.01659	-.02240	-.03122	-.00218	.02667	.01726	.01028	.00643
4.00	-.01452	-.01609	-.02117	-.02770	-.00217	.02319	.01608	.00986	.00626
4.25	-.01416	-.01558	-.02000	-.02463	-.00215	.02015	.01496	.00944	.00608
4.50	-.01380	-.01507	-.01887	-.02195	-.00213	.01751	.01388	.00903	.00590
4.75	-.01343	-.01456	-.01779	-.01962	-.00212	.01522	.01286	.00862	.00572
5.00	-.01306	-.01406	-.01677	-.01761	-.00210	.01325	.01190	.00821	.00554
5.25	-.01269	-.01356	-.01581	-.01587	-.00208	.01155	.01099	.00781	.00536
5.50	-.01231	-.01307	-.01490	-.01435	-.00206	.01008	.01015	.00743	.00518
5.75	-.01194	-.01259	-.01405	-.01304	-.00204	.00880	.00936	.00705	.00499
6.00	-.01157	-.01213	-.01325	-.01189	-.00202	.00770	.00863	.00668	.00481
6.25	-.01121	-.01167	-.01251	-.01089	-.00200	.00675	.00794	.00633	.00464
6.50	-.01084	-.01122	-.01181	-.01001	-.00198	.00591	.00731	.00599	.00446
6.75	-.01049	-.01079	-.01116	-.00923	-.00196	.00519	.00673	.00566	.00429
7.00	-.01014	-.01038	-.01055	-.00855	-.00194	.00455	.00619	.00535	.00412
7.25	-.00980	-.00997	-.00999	-.00794	-.00191	.00400	.00569	.00505	.00395
7.50	-.00946	-.00958	-.00946	-.00740	-.00189	.00351	.00524	.00477	.00379
7.75	-.00913	-.00921	-.00897	-.00692	-.00187	.00307	.00481	.00449	.00363
8.00	-.00881	-.00885	-.00852	-.00648	-.00184	.00269	.00442	.00424	.00348
8.25	-.00850	-.00850	-.00809	-.00609	-.00182	.00235	.00406	.00399	.00333
8.50	-.00820	-.00817	-.00769	-.00574	-.00180	.00205	.00373	.00376	.00318
8.75	-.00791	-.00784	-.00732	-.00542	-.00177	.00179	.00343	.00353	.00304
9.00	-.00763	-.00754	-.00697	-.00513	-.00175	.00155	.00315	.00332	.00291

TABLE II. - Continued. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta$ , $10$ , $\alpha$ , $4$									
.00	1.00000	.99534	.97518	.89985	.50965	.11913	.04275	.00204	.01153
.25	1.00002	.99537	.97529	.90045	.50965	.11853	.04264	.02040	.01152
.50	1.00009	.99548	.97562	.90224	.50965	.11674	.04232	.02031	.01149
.75	1.00019	.99565	.97616	.90515	.50966	.11384	.04179	.02017	.01144
1.00	1.00034	.99588	.97690	.90910	.50966	.10991	.04107	.01997	.01136
1.25	.83536	.83101	.81266	.74877	.42708	.10508	.04016	.01971	.01127
1.50	.70063	.69641	.67881	.61941	.35962	.09951	.03909	.01941	.01116
1.75	.58679	.58272	.56596	.51148	.30257	.09336	.03787	.01906	.01103
2.00	.48825	.48434	.46851	.41922	.25317	.08680	.03652	.01867	.01088
2.25	.40140	.39767	.38282	.33886	.20959	.08001	.03507	.01823	.01072
2.50	.32377	.32024	.30641	.26777	.17061	.07315	.03354	.01777	.01054
2.75	.25362	.25028	.23751	.20406	.13535	.06635	.03195	.01727	.01035
3.00	.18963	.18650	.17479	.14629	.10316	.05975	.03032	.01675	.01014
3.25	.13082	.12790	.11725	.09339	.07356	.05344	.02867	.01620	.00993
3.50	.07643	.07372	.06411	.04451	.04615	.04751	.02702	.01564	.00970
3.75	.02584	.02334	.01474	- .00102	.02064	.04202	.02539	.01507	.00946
4.00	- .02144	- .02372	- .03136	- .04373	- .00323	.03701	.02380	.01449	.00922
4.25	- .02093	- .02301	- .02973	- .03914	- .00320	.03248	.02224	.01391	.00897
4.50	- .02041	- .02229	- .02815	- .03504	- .00318	.02843	.02074	.01333	.00872
4.75	- .01988	- .02158	- .02663	- .03140	- .00315	.02485	.01930	.01275	.00846
5.00	- .01935	- .02086	- .02518	- .02819	- .00313	.02170	.01793	.01217	.00820
5.25	- .01882	- .02015	- .02379	- .02538	- .00310	.01894	.01663	.01161	.00794
5.50	- .01828	- .01945	- .02247	- .02291	- .00307	.01654	.01540	.01105	.00768
5.75	- .01774	- .01876	- .02122	- .02076	- .00304	.01445	.01424	.01051	.00742
6.00	- .01721	- .01808	- .02005	- .01887	- .00301	.01263	.01316	.00998	.00716
6.25	- .01668	- .01742	- .01894	- .01722	- .00298	.01105	.01215	.00947	.00690
6.50	- .01616	- .01677	- .01790	- .01578	- .00295	.00968	.01120	.00898	.00664
6.75	- .01564	- .01614	- .01693	- .01451	- .00292	.00848	.01033	.00850	.00639
7.00	- .01513	- .01553	- .01602	- .01339	- .00289	.00743	.00951	.00804	.00614
7.25	- .01463	- .01494	- .01517	- .01240	- .00285	.00652	.00876	.00760	.00590
7.50	- .01414	- .01437	- .01437	- .01152	- .00282	.00571	.00806	.00718	.00566
7.75	- .01366	- .01381	- .01363	- .01074	- .00279	.00501	.00742	.00678	.00543
8.00	- .01319	- .01328	- .01293	- .01004	- .00275	.00438	.00683	.00640	.00521
8.25	- .01273	- .01276	- .01228	- .00941	- .00272	.00383	.00628	.00603	.00499
8.50	- .01229	- .01227	- .01167	- .00885	- .00268	.00335	.00577	.00568	.00477
8.75	- .01186	- .01179	- .01111	- .00834	- .00265	.00291	.00530	.00535	.00457
9.00	- .01144	- .01133	- .01057	- .00788	- .00261	.00253	.00487	.00504	.00437
9.25	- .01103	- .01090	- .01008	- .00745	- .00258	.00219	.00447	.00474	.00417
9.50	- .01063	- .01047	- .00961	- .00707	- .00254	.00188	.00411	.00446	.00398
9.75	- .01025	- .01007	- .00917	- .00672	- .00250	.00161	.00377	.00419	.00380
10.00	- .00988	- .00968	- .00876	- .00640	- .00247	.00137	.00345	.00394	.00363
10.50	- .00918	- .00895	- .00801	- .00583	- .00239	.00095	.00290	.00347	.00330
11.00	- .00853	- .00829	- .00735	- .00534	- .00232	.00062	.00243	.00306	.00299
11.50	- .00793	- .00767	- .00676	- .00491	- .00225	.00034	.00202	.00269	.00271
12.00	- .00737	- .00711	- .00623	- .00454	- .00218	.00012	.00167	.00236	.00245

TABLE II. - Concluded. AXIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Axial field $B_z/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 10; \alpha, 5$									
.00	1.00000	.99414	.96969	.88656	.51293	.13887	.05433	.02698	.01552
.25	1.00003	.99418	.96981	.88713	.51293	.13830	.05421	.02695	.01550
.50	1.00011	.99430	.97017	.88883	.51294	.13661	.05386	.02684	.01546
.75	1.00024	.99451	.97077	.89161	.51294	.13385	.05328	.02667	.01540
1.00	1.00043	.99479	.97159	.89538	.51295	.13009	.05248	.02642	.01530
1.25	.85713	.85162	.82909	.75650	.44119	.12545	.05147	.02612	.01519
1.50	.74014	.73478	.71304	.64464	.38256	.12005	.05028	.02575	.01505
1.75	.64131	.63612	.61529	.55153	.33299	.11404	.04891	.02532	.01488
2.00	.55580	.55080	.53097	.47215	.29006	.10755	.04739	.02485	.01469
2.25	.48046	.47567	.45691	.40324	.25220	.10074	.04574	.02432	.01448
2.50	.41315	.40858	.39096	.34253	.21833	.09373	.04399	.02374	.01426
2.75	.35234	.34801	.33157	.28835	.18769	.08664	.04214	.02313	.01401
3.00	.29691	.29282	.27758	.23948	.15973	.07959	.04023	.02248	.01375
3.25	.24599	.24215	.22813	.19497	.13401	.07267	.03828	.02180	.01347
3.50	.19891	.19533	.18252	.15407	.11020	.06596	.03631	.02110	.01318
3.75	.15516	.15183	.14020	.11619	.08804	.05953	.03433	.02038	.01287
4.00	.11428	.11121	.10075	.08084	.06731	.05343	.03237	.01965	.01256
4.25	.07595	.07313	.06379	.04763	.04785	.04772	.03044	.01891	.01223
4.50	.03986	.03729	.02901	.01623	.02950	.04242	.02855	.01816	.01190
4.75	.00577	.00344	- .00382	- .01360	.01214	.03755	.02671	.01742	.01156
5.00	- .02653	- .02863	- .03493	- .04210	- .00432	.03313	.02494	.01668	.01122
5.25	- .02583	- .02770	- .03312	- .03803	- .00428	.02915	.02324	.01594	.01088
5.50	- .02512	- .02678	- .03138	- .03439	- .00425	.02560	.02162	.01522	.01053
5.75	- .02441	- .02587	- .02971	- .03115	- .00421	.02244	.02008	.01450	.01019
6.00	- .02370	- .02497	- .02813	- .02828	- .00417	.01966	.01862	.01381	.00984
6.25	- .02300	- .02409	- .02663	- .02574	- .00412	.01722	.01725	.01313	.00950
6.50	- .02230	- .02323	- .02521	- .02350	- .00408	.01508	.01596	.01247	.00916
6.75	- .02160	- .02238	- .02387	- .02153	- .00404	.01320	.01475	.01183	.00882
7.00	- .02092	- .02156	- .02261	- .01979	- .00399	.01156	.01362	.01121	.00849
7.25	- .02025	- .02076	- .02142	- .01826	- .00395	.01013	.01257	.01062	.00817
7.50	- .01959	- .01998	- .02031	- .01690	- .00390	.00887	.01159	.01005	.00785
7.75	- .01894	- .01923	- .01926	- .01569	- .00386	.00776	.01068	.00950	.00753
8.00	- .01830	- .01850	- .01828	- .01462	- .00381	.00679	.00984	.00897	.00723
8.25	- .01768	- .01780	- .01737	- .01366	- .00376	.00594	.00906	.00847	.00693
8.50	- .01708	- .01712	- .01651	- .01280	- .00371	.00519	.00834	.00799	.00664
8.75	- .01649	- .01646	- .01570	- .01203	- .00366	.00452	.00767	.00754	.00636
9.00	- .01591	- .01583	- .01495	- .01133	- .00362	.00393	.00705	.00710	.00608
9.25	- .01536	- .01522	- .01424	- .01070	- .00357	.00340	.00648	.00669	.00582
9.50	- .01482	- .01464	- .01358	- .01012	- .00352	.00294	.00595	.00629	.00556
9.75	- .01429	- .01408	- .01295	- .00960	- .00347	.00252	.00546	.00592	.00531
10.00	- .01379	- .01354	- .01237	- .00912	- .00342	.00215	.00501	.00557	.00507
10.50	- .01282	- .01253	- .01130	- .00828	- .00332	.00152	.00421	.00492	.00462
11.00	- .01192	- .01160	- .01036	- .00756	- .00322	.00102	.00353	.00434	.00419
11.50	- .01109	- .01075	- .00952	- .00694	- .00312	.00061	.00294	.00381	.00380
12.00	- .01031	- .00997	- .00877	- .00640	- .00302	.00028	.00244	.00335	.00344
13.00	- .00892	- .00859	- .00750	- .00551	- .00283	- .00020	.00165	.00257	.00281
14.00	- .00774	- .00743	- .00647	- .00480	- .00264	- .00052	.00106	.00194	.00228
15.00	- .00673	- .00646	- .00561	- .00422	- .00247	- .00072	.00062	.00145	.00183

TABLE III. - RADIAL FIELD AT CONSTANT CURRENT DENSITY AS FUNCTION  
OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta$ , $l$ ; $\alpha$ , 1.5										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.02218	.04368	.06152	.07052	.06787	.05709	.04413	.03271	
.50	.00000	.04458	.08967	.12997	.15087	.14213	.11536	.08680	.06334	
.75	.00000	.06577	.13741	.21294	.25879	.22984	.17321	.12474	.08922	
1.00	.00000	.08128	.17732	.30675	.48982	.32698	.22012	.15176	.10703	
1.25	.00000	.08526	.18916	.34517	.63916	.36709	.23537	.16089	.11417	
1.50	.00000	.07636	.16482	.28173	.45229	.30382	.21096	.15100	.11063	
1.75	.00000	.06021	.12352	.18750	.22704	.20841	.16686	.12917	.09956	
2.00	.00000	.04400	.08664	.12321	.14385	.14213	.12547	.10467	.08517	
2.25	.00000	.03114	.06005	.08341	.09733	.09997	.09366	.08277	.07071	
2.50	.00000	.02195	.04203	.05814	.06845	.07224	.07046	.06503	.05782	
2.75	.00000	.01564	.02993	.04155	.04949	.05339	.05361	.05115	.04700	
3.00	.00000	.01133	.02173	.03035	.03657	.04017	.04129	.04043	.03816	
3.25	.00000	.00836	.01608	.02262	.02757	.03073	.03220	.03220	.03108	
3.50	.00000	.00629	.01213	.01717	.02112	.02384	.02537	.02582	.02540	
3.75	.00000	.00479	.00929	.01321	.01640	.01876	.02023	.02087	.02084	
4.00	.00000	.00370	.00721	.01034	.01292	.01490	.01627	.01701	.01723	
4.25	.00000	.00294	.00568	.00820	.01031	.01200	.01321	.01394	.01430	
4.50	.00000	.00233	.00456	.00657	.00833	.00973	.01082	.01155	.01193	
Nondimensional coil parameters: $\beta$ , $l$ ; $\alpha$ , 2										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.02010	.03904	.05441	.06259	.06177	.05433	.04443	.03489	
.50	.00000	.04085	.08055	.11441	.13261	.12871	.11029	.08834	.06853	
.75	.00000	.06195	.12539	.18634	.22242	.20672	.16784	.13001	.09908	
1.00	.00000	.08096	.16914	.27096	.38938	.29616	.22169	.16549	.12400	
1.25	.00000	.09371	.19989	.33511	.52854	.36352	.25915	.18911	.14047	
1.50	.00000	.09666	.20740	.35075	.55136	.38062	.26963	.19653	.14657	
1.75	.00000	.08930	.19020	.31943	.50989	.34913	.25173	.18735	.14241	
2.00	.00000	.07447	.15461	.24656	.35777	.27468	.21252	.16569	.13022	
2.25	.00000	.05720	.11454	.16843	.20179	.19400	.16683	.13844	.11360	
2.50	.00000	.04183	.08153	.11491	.13499	.13745	.12724	.11191	.09592	
2.75	.00000	.03008	.05786	.08048	.09494	.09986	.09689	.08919	.07948	
3.00	.00000	.02168	.04155	.05778	.06886	.07418	.07438	.07087	.06527	
3.25	.00000	.01581	.03034	.04242	.05113	.05613	.05768	.05649	.05345	
3.50	.00000	.01172	.02257	.03175	.03870	.04317	.04523	.04528	.04379	
3.75	.00000	.00884	.01707	.02419	.02977	.03367	.03584	.03653	.03600	
4.00	.00000	.00678	.01314	.01873	.02326	.02659	.02869	.02968	.02972	
4.25	.00000	.00528	.01026	.01471	.01841	.02124	.02319	.02429	.02465	
4.50	.00000	.00416	.00813	.01170	.01474	.01715	.01891	.02003	.02056	
4.75	.00000	.00333	.00651	.00943	.01193	.01400	.01554	.01663	.01723	
5.00	.00000	.00270	.00528	.00767	.00976	.01151	.01289	.01389	.01453	
5.25	.00000	.00221	.00432	.00630	.00806	.00955	.01076	.01168	.01231	
5.50	.00000	.00181	.00357	.00523	.00671	.00799	.00905	.00989	.01049	
5.75	.00000	.00151	.00299	.00438	.00562	.00672	.00767	.00841	.00898	
6.00	.00000	.00128	.00251	.00368	.00475	.00571	.00653	.00720	.00772	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l, a, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01665	.03221	.04485	.05216	.05297	.04878	.04227	.03544
.50	.00000	.03401	.06647	.09385	.10964	.10985	.09916	.08466	.07034
.75	.00000	.05222	.10398	.15165	.18084	.17503	.15179	.12653	.10380
1.00	.00000	.07022	.14286	.21988	.30139	.24984	.20422	.16588	.13438
1.25	.00000	.08587	.17690	.28016	.41017	.31562	.24961	.19948	.16027
1.50	.00000	.09732	.20090	.31798	.45717	.35763	.28223	.22455	.17984
1.75	.00000	.10384	.21415	.33753	.48036	.37986	.30099	.23972	.19212
2.00	.00000	.10546	.21747	.34249	.48640	.38596	.30657	.24475	.19674
2.25	.00000	.10227	.21122	.33383	.47670	.37692	.29943	.23986	.19385
2.50	.00000	.09433	.19516	.31039	.44953	.35175	.27963	.22560	.18407
2.75	.00000	.08205	.16918	.26905	.39837	.30757	.24759	.20325	.16861
3.00	.00000	.06696	.13583	.20860	.28785	.24350	.20659	.17555	.14940
3.25	.00000	.05171	.10234	.14847	.17855	.17937	.16468	.14656	.12878
3.50	.00000	.03867	.07514	.10599	.12621	.13283	.12902	.11994	.10889
3.75	.00000	.02865	.05525	.07740	.09281	.10038	.10116	.09737	.09105
4.00	.00000	.02135	.04113	.05775	.06997	.07722	.07989	.07901	.07577
4.25	.00000	.01611	.03111	.04391	.05377	.06032	.06367	.06434	.06300
4.50	.00000	.01235	.02391	.03397	.04200	.04774	.05121	.05266	.05249
4.75	.00000	.00962	.01866	.02668	.03327	.03825	.04158	.04337	.04387
5.00	.00000	.00759	.01479	.02125	.02669	.03098	.03404	.03595	.03683
5.25	.00000	.00607	.01187	.01713	.02165	.02533	.02811	.02999	.03105
5.50	.00000	.00492	.00964	.01397	.01776	.02092	.02339	.02517	.02632
5.75	.00000	.00403	.00791	.01150	.01469	.01742	.01960	.02126	.02240
6.00	.00000	.00333	.00655	.00956	.01227	.01461	.01655	.01807	.01917
6.25	.00000	.00279	.00549	.00801	.01032	.01235	.01405	.01543	.01648
6.50	.00000	.00235	.00462	.00678	.00875	.01051	.01202	.01325	.01424
6.75	.00000	.00198	.00393	.00576	.00747	.00900	.01033	.01144	.01235
7.00	.00000	.00170	.00336	.00494	.00641	.00775	.00892	.00992	.01076
7.25	.00000	.00146	.00289	.00426	.00554	.00670	.00775	.00865	.00941
7.50	.00000	.00126	.00250	.00368	.00480	.00584	.00676	.00758	.00827
7.75	.00000	.00110	.00218	.00321	.00419	.00510	.00592	.00666	.00729
8.00	.00000	.00096	.00190	.00281	.00367	.00448	.00521	.00587	.00645
8.25	.00000	.00084	.00166	.00247	.00323	.00395	.00460	.00520	.00572
8.50	.00000	.00074	.00147	.00218	.00286	.00349	.00409	.00462	.00509
8.75	.00000	.00065	.00130	.00193	.00253	.00311	.00363	.00412	.00456
9.00	.00000	.00059	.00116	.00172	.00225	.00276	.00324	.00368	.00408

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, l, \alpha, 4$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01438	.02782	.03885	.04554	.04692	.04418	.03938	.03411	
.50	.00000	.02938	.05738	.08108	.09537	.09706	.08978	.07902	.06795	
.75	.00000	.04518	.08970	.13049	.15622	.15406	.13753	.11861	.10094	
1.00	.00000	.06106	.12354	.18854	.25588	.21917	.18575	.15678	.13212	
1.25	.00000	.07548	.15429	.24135	.34746	.27832	.22943	.19125	.16021	
1.50	.00000	.08715	.17824	.27809	.39275	.32051	.26449	.22008	.18412	
1.75	.00000	.09574	.19525	.30254	.42167	.34937	.29046	.24246	.20316	
2.00	.00000	.10151	.20646	.31831	.44023	.36843	.30834	.25843	.21710	
2.25	.00000	.10483	.21289	.32731	.45089	.37955	.31905	.26826	.22592	
2.50	.00000	.10593	.21506	.33042	.45467	.38361	.32309	.27220	.22971	
2.75	.00000	.10487	.21308	.32781	.45180	.38077	.32063	.27034	.22853	
3.00	.00000	.10149	.20665	.31904	.44178	.37067	.31146	.26264	.22247	
3.25	.00000	.09551	.19510	.30301	.42332	.35229	.29506	.24903	.21169	
3.50	.00000	.08666	.17749	.27770	.39380	.32375	.27077	.22961	.19657	
3.75	.00000	.07498	.15321	.23995	.34737	.28209	.23840	.20505	.17791	
4.00	.00000	.06146	.12387	.18828	.25610	.22611	.20010	.17722	.15706	
4.25	.00000	.04807	.09487	.13737	.16617	.17074	.16185	.14915	.13579	
4.50	.00000	.03660	.07116	.10071	.12105	.12970	.12916	.12358	.11568	
4.75	.00000	.02770	.05353	.07541	.09134	.10034	.10323	.10179	.09773	
5.00	.00000	.02111	.04077	.05762	.07050	.07889	.08308	.08388	.08229	
5.25	.00000	.01629	.03154	.04481	.05538	.06289	.06742	.06936	.06930	
5.50	.00000	.01275	.02477	.03540	.04415	.05074	.05518	.05765	.05848	
5.75	.00000	.01013	.01974	.02837	.03565	.04139	.04554	.04818	.04951	
6.00	.00000	.00816	.01594	.02302	.02913	.03410	.03789	.04051	.04208	
6.25	.00000	.00665	.01302	.01889	.02404	.02835	.03176	.03426	.03593	
6.50	.00000	.00548	.01076	.01566	.02003	.02376	.02681	.02914	.03081	
6.75	.00000	.00457	.00898	.01310	.01683	.02008	.02278	.02493	.02654	
7.00	.00000	.00383	.00756	.01106	.01426	.01708	.01948	.02144	.02296	
7.25	.00000	.00325	.00641	.00940	.01216	.01462	.01676	.01854	.01996	
7.50	.00000	.00277	.00548	.00805	.01044	.01259	.01449	.01610	.01741	
7.75	.00000	.00238	.00471	.00694	.00902	.01091	.01259	.01404	.01526	
8.00	.00000	.00206	.00408	.00602	.00783	.00950	.01100	.01231	.01343	
8.25	.00000	.00179	.00355	.00524	.00684	.00832	.00965	.01084	.01186	
8.50	.00000	.00157	.00311	.00459	.00600	.00731	.00851	.00957	.01051	
8.75	.00000	.00138	.00273	.00404	.00528	.00645	.00752	.00849	.00934	
9.00	.00000	.00121	.00241	.00357	.00467	.00572	.00668	.00755	.00833	
9.25	.00000	.00107	.00213	.00316	.00415	.00509	.00595	.00674	.00746	
9.50	.00000	.00096	.00190	.00282	.00370	.00454	.00532	.00604	.00669	
9.75	.00000	.00086	.00170	.00252	.00331	.00406	.00477	.00542	.00602	
10.00	.00000	.00077	.00152	.00226	.00297	.00365	.00429	.00489	.00543	
10.50	.00000	.00062	.00123	.00183	.00241	.00298	.00350	.00400	.00446	
11.00	.00000	.00051	.00101	.00150	.00198	.00245	.00288	.00330	.00369	
11.50	.00000	.00042	.00083	.00124	.00164	.00203	.00240	.00275	.00308	
12.00	.00000	.00035	.00070	.00104	.00137	.00170	.00201	.00231	.00259	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l, \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01284	.02486	.03479	.04096	.04256	.04056	.03673	.03241
.50	.00000	.02623	.05123	.07249	.08563	.08791	.08239	.07374	.06464
.75	.00000	.04033	.08003	.11639	.13977	.13922	.12620	.11085	.09629
1.00	.00000	.05457	.11023	.16779	.22701	.19763	.17062	.14697	.12658
1.25	.00000	.06767	.13800	.21499	.30770	.25131	.21153	.18026	.15454
1.50	.00000	.07857	.16025	.24891	.34955	.29104	.24553	.20915	.17928
1.75	.00000	.08703	.17695	.27289	.37808	.32004	.27240	.23309	.20033
2.00	.00000	.09335	.18922	.29013	.39856	.34150	.29313	.25222	.21758
2.25	.00000	.09793	.19806	.30250	.41330	.35722	.30869	.26694	.23111
2.50	.00000	.10110	.20416	.31105	.42355	.36827	.31980	.27762	.24109
2.75	.00000	.10306	.20794	.31637	.42997	.37524	.32689	.28453	.24766
3.00	.00000	.10392	.20961	.31874	.43288	.37843	.33019	.28784	.25090
3.25	.00000	.10369	.20919	.31823	.43234	.37791	.32976	.28756	.25086
3.50	.00000	.10230	.20657	.31464	.42817	.37349	.32545	.28365	.24752
3.75	.00000	.09958	.20141	.30756	.41988	.36475	.31697	.27592	.24080
4.00	.00000	.09529	.19319	.29622	.40667	.35098	.30384	.26413	.23065
4.25	.00000	.08905	.18115	.27944	.38713	.33104	.28538	.24803	.21708
4.50	.00000	.08056	.16433	.25529	.35882	.30312	.26084	.22754	.20032
4.75	.00000	.06979	.14209	.22094	.31661	.26452	.22989	.20311	.18094
5.00	.00000	.05754	.11569	.17501	.23661	.21409	.19421	.17625	.16002
5.25	.00000	.04546	.08967	.12983	.15776	.16435	.15881	.14945	.13902
5.50	.00000	.03507	.06825	.09685	.11716	.12696	.12839	.12504	.11928
5.75	.00000	.02694	.05216	.07377	.08994	.09980	.10401	.10413	.10164
6.00	.00000	.02084	.04037	.05729	.07054	.07965	.08483	.08679	.08639
6.25	.00000	.01634	.03171	.04525	.05626	.06441	.06974	.07259	.07346
6.50	.00000	.01298	.02528	.03628	.04550	.05268	.05780	.06101	.06260
6.75	.00000	.01047	.02044	.02948	.03725	.04353	.04829	.05156	.05353
7.00	.00000	.00855	.01674	.02425	.03083	.03632	.04063	.04381	.04594
7.25	.00000	.00706	.01386	.02015	.02576	.03055	.03444	.03744	.03959
7.50	.00000	.00589	.01159	.01692	.02172	.02590	.02939	.03217	.03427
7.75	.00000	.00497	.00978	.01433	.01846	.02212	.02523	.02779	.02979
8.00	.00000	.00422	.00833	.01222	.01580	.01901	.02179	.02412	.02600
8.25	.00000	.00361	.00714	.01050	.01362	.01644	.01892	.02104	.02279
8.50	.00000	.00312	.00616	.00908	.01180	.01429	.01651	.01843	.02006
8.75	.00000	.00270	.00535	.00790	.01029	.01249	.01448	.01622	.01771
9.00	.00000	.00236	.00467	.00691	.00902	.01098	.01275	.01433	.01570
9.25	.00000	.00207	.00411	.00607	.00794	.00969	.01128	.01270	.01396
9.50	.00000	.00182	.00362	.00537	.00702	.00858	.01001	.01131	.01246
9.75	.00000	.00161	.00321	.00476	.00623	.00763	.00892	.01010	.01115
10.00	.00000	.00144	.00286	.00423	.00556	.00681	.00798	.00905	.01001
10.50	.00000	.00115	.00229	.00340	.00447	.00548	.00644	.00733	.00814
11.00	.00000	.00093	.00185	.00275	.00363	.00447	.00525	.00600	.00669
11.50	.00000	.00076	.00152	.00226	.00298	.00368	.00434	.00496	.00555
12.00	.00000	.00063	.00126	.00187	.00247	.00306	.00361	.00414	.00464
13.00	.00000	.00045	.00089	.00133	.00175	.00217	.00257	.00296	.00332
14.00	.00000	.00032	.00064	.00096	.00128	.00158	.00188	.00217	.00244
15.00	.00000	.00024	.00048	.00072	.00095	.00118	.00140	.00162	.00183

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, 2; \alpha, 1.5$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00991	.02418	.04518	.05922	.04629	.02668	.01449	.00812	
.50	.00000	.01899	.04683	.09104	.12518	.09321	.05169	.02789	.01571	
.75	.00000	.02647	.06597	.13622	.21056	.13933	.07295	.03916	.02225	
1.00	.00000	.03164	.07913	.17284	.38565	.17678	.08793	.04747	.02741	
1.25	.00000	.03416	.08441	.18544	.49889	.19006	.09463	.05235	.03095	
1.50	.00000	.03412	.08180	.16815	.36205	.17326	.09305	.05386	.03291	
1.75	.00000	.03206	.07361	.13578	.19556	.14120	.08548	.05256	.03341	
2.00	.00000	.02871	.06297	.10494	.13306	.11056	.07510	.04933	.03272	
2.25	.00000	.02487	.05228	.08085	.09697	.08649	.06434	.04504	.03121	
2.50	.00000	.02102	.04275	.06290	.07349	.06847	.05450	.04037	.02918	
2.75	.00000	.01751	.03475	.04954	.05721	.05490	.04601	.03577	.02687	
3.00	.00000	.01446	.02822	.03947	.04539	.04457	.03886	.03145	.02449	
3.25	.00000	.01191	.02298	.03178	.03657	.03659	.03291	.02758	.02215	
3.50	.00000	.00981	.01878	.02581	.02982	.03029	.02798	.02414	.01994	
3.75	.00000	.00809	.01541	.02116	.02456	.02531	.02388	.02112	.01788	
4.00	.00000	.00668	.01274	.01748	.02041	.02130	.02045	.01850	.01602	
4.25	.00000	.00554	.01057	.01453	.01708	.01802	.01760	.01621	.01432	
4.50	.00000	.00462	.00882	.01217	.01439	.01536	.01522	.01425	.01281	
Nondimensional coil parameters: $\beta, 2; \alpha, 2$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01075	.02452	.04193	.05258	.04343	.02786	.01671	.01011	
.50	.00000	.02089	.04814	.08480	.10991	.08775	.05470	.03255	.01970	
.75	.00000	.02984	.06961	.12841	.18024	.13271	.07911	.04663	.02830	
1.00	.00000	.03692	.08712	.16889	.30348	.17437	.09916	.05814	.03550	
1.25	.00000	.04165	.09869	.19725	.40564	.20369	.11282	.06637	.04097	
1.50	.00000	.04372	.10297	.20593	.42439	.21314	.11869	.07097	.04459	
1.75	.00000	.04325	.10005	.19402	.39633	.20178	.11684	.07205	.04639	
2.00	.00000	.04068	.09149	.16652	.28910	.17459	.10887	.07012	.04654	
2.25	.00000	.03672	.07981	.13395	.17799	.14216	.09732	.06501	.04536	
2.50	.00000	.03211	.06739	.10528	.12871	.11344	.08467	.06060	.04320	
2.75	.00000	.02743	.05584	.08285	.09776	.09081	.07258	.05464	.04040	
3.00	.00000	.02307	.04586	.06577	.07643	.07343	.06183	.04868	.03726	
3.25	.00000	.01920	.03755	.05274	.06095	.06001	.05259	.04305	.03402	
3.50	.00000	.01592	.03076	.04271	.04934	.04953	.04481	.03790	.03085	
3.75	.00000	.01318	.02529	.03489	.04042	.04125	.03827	.03330	.02783	
4.00	.00000	.01092	.02088	.02873	.03344	.03460	.03281	.02924	.02501	
4.25	.00000	.00908	.01732	.02383	.02789	.02923	.02823	.02569	.02244	
4.50	.00000	.00757	.01444	.01990	.02344	.02484	.02438	.02260	.02012	
4.75	.00000	.00635	.01211	.01673	.01983	.02123	.02113	.01990	.01802	
5.00	.00000	.00535	.01021	.01416	.01687	.01824	.01838	.01757	.01614	
5.25	.00000	.00452	.00865	.01203	.01443	.01574	.01604	.01554	.01448	
5.50	.00000	.00385	.00737	.01028	.01241	.01364	.01406	.01377	.01298	
5.75	.00000	.00329	.00631	.00885	.01072	.01188	.01235	.01223	.01167	
6.00	.00000	.00282	.00542	.00763	.00931	.01038	.01088	.01088	.01048	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2, \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01088	.02327	.03684	.04473	.03909	.02812	.01909	.01291
.50	.00000	.02146	.04618	.07458	.09261	.07902	.05574	.03764	.02542
.75	.00000	.03139	.06816	.11348	.14883	.11999	.08215	.05505	.03715
1.00	.00000	.04029	.08823	.15180	.23646	.16020	.10627	.07072	.04773
1.25	.00000	.04774	.10523	.18493	.31509	.19499	.12681	.08407	.05684
1.50	.00000	.05340	.11809	.20900	.35166	.22048	.14263	.09458	.06420
1.75	.00000	.05702	.12615	.22325	.37094	.23585	.15302	.10193	.06964
2.00	.00000	.05852	.12919	.22810	.37725	.24152	.15773	.10598	.07311
2.25	.00000	.05792	.12729	.22386	.37157	.23782	.15686	.10678	.07463
2.50	.00000	.05546	.12087	.21064	.35290	.22485	.15085	.10465	.07436
2.75	.00000	.05148	.11071	.18880	.31718	.20301	.14056	.10005	.07255
3.00	.00000	.04647	.09810	.16063	.24150	.17461	.12732	.09361	.06949
3.25	.00000	.04094	.08456	.13152	.16592	.14509	.11277	.08603	.06554
3.50	.00000	.03538	.07150	.10629	.12738	.11931	.09841	.07798	.06103
3.75	.00000	.03015	.05979	.08609	.10114	.09844	.08519	.06997	.05625
4.00	.00000	.02545	.04975	.07021	.08193	.08183	.07351	.06236	.05144
4.25	.00000	.02138	.04137	.05771	.06730	.06854	.06342	.05536	.04677
4.50	.00000	.01792	.03447	.04780	.05589	.05784	.05481	.04903	.04234
4.75	.00000	.01504	.02881	.03986	.04682	.04912	.04748	.04340	.03823
5.00	.00000	.01264	.02418	.03347	.03952	.04196	.04126	.03841	.03445
5.25	.00000	.01066	.02039	.02827	.03357	.03604	.03595	.03403	.03102
5.50	.00000	.00903	.01728	.02401	.02869	.03110	.03143	.03018	.02792
5.75	.00000	.00768	.01471	.02051	.02465	.02696	.02757	.02681	.02514
6.00	.00000	.00656	.01258	.01761	.02128	.02347	.02424	.02386	.02265
6.25	.00000	.00563	.01082	.01519	.01846	.02051	.02139	.02127	.02041
6.50	.00000	.00486	.00935	.01317	.01608	.01799	.01893	.01900	.01842
6.75	.00000	.00420	.00811	.01146	.01407	.01584	.01679	.01701	.01664
7.00	.00000	.00366	.00706	.01001	.01235	.01399	.01494	.01525	.01505
7.25	.00000	.00319	.00618	.00879	.01088	.01240	.01332	.01371	.01363
7.50	.00000	.00280	.00543	.00774	.00963	.01102	.01191	.01234	.01236
7.75	.00000	.00246	.00479	.00684	.00854	.00982	.01068	.01113	.01123
8.00	.00000	.00217	.00423	.00607	.00760	.00878	.00960	.01006	.01021
8.25	.00000	.00193	.00376	.00540	.00678	.00787	.00865	.00911	.00930
8.50	.00000	.00172	.00334	.00482	.00608	.00708	.00780	.00827	.00849
8.75	.00000	.00153	.00299	.00432	.00545	.00637	.00706	.00751	.00775
9.00	.00000	.00137	.00268	.00387	.00491	.00575	.00640	.00684	.00709

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2, a, 4$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01031	.02150	.03313	.03989	.03593	.02739	.01993	.01444
.50	.00000	.02043	.04283	.06704	.08226	.07258	.05449	.03948	.02858
.75	.00000	.03015	.06363	.10208	.13109	.11024	.08082	.05824	.04213
1.00	.00000	.03922	.08328	.13707	.20365	.14770	.10566	.07578	.05480
1.25	.00000	.04737	.10099	.16876	.27018	.18165	.12812	.09164	.06631
1.50	.00000	.05436	.11606	.19449	.30641	.20939	.14741	.10546	.07643
1.75	.00000	.06002	.12806	.21389	.33101	.23053	.16303	.11693	.08497
2.00	.00000	.06422	.13685	.22754	.34769	.24562	.17478	.12584	.09180
2.25	.00000	.06691	.14241	.23598	.35791	.25517	.18263	.13210	.09682
2.50	.00000	.06810	.14480	.23955	.36230	.25954	.18661	.13568	.10002
2.75	.00000	.06780	.14405	.23834	.36103	.25881	.18678	.13663	.10142
3.00	.00000	.06606	.14024	.23226	.35389	.25290	.18323	.13505	.10111
3.25	.00000	.06300	.13344	.22105	.34017	.24158	.17610	.13115	.09925
3.50	.00000	.05879	.12391	.20437	.31840	.22455	.16570	.12521	.09602
3.75	.00000	.05370	.11214	.18220	.28510	.20181	.15262	.11765	.09167
4.00	.00000	.04805	.09901	.15599	.22292	.17486	.13780	.10895	.08648
4.25	.00000	.04222	.08560	.12963	.16122	.14761	.12243	.09966	.08074
4.50	.00000	.03656	.07292	.10668	.12764	.12367	.10759	.09028	.07472
4.75	.00000	.03133	.06161	.08799	.10385	.10394	.09401	.08120	.06867
5.00	.00000	.02666	.05187	.07302	.08587	.08789	.08198	.07268	.06275
5.25	.00000	.02261	.04368	.06100	.07183	.07479	.07150	.06488	.05712
5.50	.00000	.01917	.03686	.05130	.06062	.06402	.06245	.05783	.05184
5.75	.00000	.01627	.03121	.04340	.05155	.05510	.05466	.05153	.04696
6.00	.00000	.01383	.02653	.03693	.04411	.04766	.04797	.04594	.04249
6.25	.00000	.01181	.02265	.03160	.03795	.04141	.04222	.04099	.03843
6.50	.00000	.01012	.01942	.02718	.03282	.03613	.03725	.03661	.03476
6.75	.00000	.00870	.01673	.02349	.02852	.03165	.03295	.03276	.03145
7.00	.00000	.00752	.01447	.02039	.02490	.02783	.02924	.02935	.02848
7.25	.00000	.00652	.01258	.01778	.02181	.02455	.02601	.02635	.02580
7.50	.00000	.00568	.01098	.01556	.01919	.02173	.02319	.02369	.02340
7.75	.00000	.00497	.00962	.01368	.01694	.01930	.02073	.02134	.02125
8.00	.00000	.00436	.00846	.01207	.01501	.01719	.01858	.01926	.01932
8.25	.00000	.00384	.00748	.01069	.01334	.01535	.01669	.01741	.01759
8.50	.00000	.00340	.00662	.00950	.01190	.01375	.01503	.01577	.01603
8.75	.00000	.00302	.00589	.00846	.01063	.01234	.01356	.01431	.01463
9.00	.00000	.00269	.00525	.00756	.00954	.01112	.01227	.01301	.01338
9.25	.00000	.00241	.00470	.00678	.00858	.01003	.01112	.01185	.01224
9.50	.00000	.00216	.00422	.00610	.00774	.00908	.01010	.01081	.01122
9.75	.00000	.00194	.00379	.00550	.00699	.00822	.00919	.00987	.01030
10.00	.00000	.00175	.00342	.00497	.00633	.00748	.00837	.00903	.00946
10.50	.00000	.00143	.00281	.00409	.00523	.00621	.00700	.00761	.00802
11.00	.00000	.00118	.00233	.00339	.00436	.00520	.00589	.00644	.00684
11.50	.00000	.00099	.00194	.00284	.00366	.00438	.00499	.00548	.00586
12.00	.00000	.00083	.00163	.00240	.00310	.00371	.00425	.00469	.00504

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, 2, \alpha, 5$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00963	.01989	.03030	.03644	.03343	.02639	.02004	.01518	
.50	.00000	.01912	.03967	.06130	.07497	.06751	.05258	.03979	.03013	
.75	.00000	.02833	.05909	.09333	.11895	.10253	.07822	.05894	.04461	
1.00	.00000	.03706	.07768	.12548	.18270	.13753	.10274	.07714	.05839	
1.25	.00000	.04512	.09484	.15513	.24170	.16986	.12545	.09406	.07125	
1.50	.00000	.05233	.11002	.18014	.27600	.19733	.14574	.10940	.08301	
1.75	.00000	.05857	.12294	.20030	.30113	.21972	.16326	.12292	.09349	
2.00	.00000	.06376	.13352	.21618	.32022	.23755	.17788	.13448	.10258	
2.25	.00000	.06789	.14182	.22834	.33465	.25139	.18960	.14398	.11019	
2.50	.00000	.07096	.14794	.23720	.34512	.26160	.19851	.15138	.11626	
2.75	.00000	.07300	.15197	.24302	.35202	.26847	.20467	.15668	.12076	
3.00	.00000	.07400	.15397	.24592	.35556	.27211	.20813	.15988	.12369	
3.25	.00000	.07398	.15394	.24597	.35579	.27258	.20893	.16102	.12507	
3.50	.00000	.07295	.15189	.24308	.35263	.26983	.20707	.16012	.12495	
3.75	.00000	.07092	.14777	.23711	.34584	.26371	.20256	.15726	.12339	
4.00	.00000	.06790	.14154	.22781	.33500	.25399	.19539	.15253	.12049	
4.25	.00000	.06397	.13321	.21480	.31937	.24035	.18565	.14609	.11639	
4.50	.00000	.05923	.12293	.19772	.29757	.22242	.17352	.13817	.11128	
4.75	.00000	.05388	.11103	.17642	.26665	.20011	.15944	.12909	.10534	
5.00	.00000	.04818	.09820	.15202	.21215	.17458	.14416	.11925	.09883	
5.25	.00000	.04243	.08531	.12771	.15816	.14904	.12864	.10909	.09199	
5.50	.00000	.03691	.07320	.10643	.12764	.12647	.11378	.09903	.08504	
5.75	.00000	.03182	.06237	.08891	.10550	.10763	.10018	.08939	.07818	
6.00	.00000	.02729	.05301	.07468	.08846	.09209	.08806	.08038	.07156	
6.25	.00000	.02334	.04508	.06312	.07493	.07924	.07744	.07212	.06530	
6.50	.00000	.01995	.03842	.05367	.06397	.06853	.06819	.06465	.05946	
6.75	.00000	.01708	.03285	.04589	.05497	.05957	.06017	.05795	.05406	
7.00	.00000	.01467	.02819	.03945	.04751	.05200	.05322	.05196	.04912	
7.25	.00000	.01263	.02430	.03408	.04128	.04558	.04718	.04663	.04461	
7.50	.00000	.01092	.02103	.02959	.03602	.04010	.04193	.04191	.04053	
7.75	.00000	.00948	.01828	.02580	.03158	.03541	.03736	.03771	.03684	
8.00	.00000	.00826	.01596	.02259	.02779	.03137	.03337	.03398	.03350	
8.25	.00000	.00723	.01398	.01986	.02455	.02788	.02988	.03068	.03050	
8.50	.00000	.00635	.01231	.01753	.02176	.02486	.02682	.02774	.02779	
8.75	.00000	.00560	.01087	.01552	.01935	.02222	.02412	.02512	.02535	
9.00	.00000	.00495	.00964	.01380	.01726	.01992	.02175	.02280	.02315	
9.25	.00000	.00440	.00857	.01230	.01545	.01791	.01965	.02072	.02117	
9.50	.00000	.00392	.00765	.01101	.01387	.01614	.01780	.01886	.01938	
9.75	.00000	.00350	.00684	.00988	.01248	.01458	.01615	.01720	.01776	
10.00	.00000	.00314	.00614	.00888	.01126	.01320	.01468	.01571	.01630	
10.50	.00000	.00255	.00500	.00725	.00923	.01090	.01221	.01316	.01379	
11.00	.00000	.00209	.00410	.00597	.00764	.00907	.01023	.01111	.01172	
11.50	.00000	.00173	.00340	.00497	.00638	.00760	.00862	.00943	.01001	
12.00	.00000	.00145	.00285	.00416	.00536	.00642	.00732	.00804	.00859	
13.00	.00000	.00103	.00204	.00299	.00388	.00467	.00536	.00595	.00642	
14.00	.00000	.00075	.00150	.00220	.00287	.00348	.00402	.00449	.00488	
15.00	.00000	.00057	.00112	.00166	.00217	.00264	.00307	.00344	.00377	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, 1.5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00440	.01286	.03313	.05539	.03347	.01366	.00594	.00293
.50	.00000	.00852	.02474	.06506	.11694	.06575	.02632	.01151	.00572
.75	.00000	.01205	.03469	.09348	.19628	.09450	.03701	.01643	.00826
1.00	.00000	.01481	.04197	.11405	.35796	.11537	.04496	.02044	.01047
1.25	.00000	.01669	.04613	.12199	.46269	.12357	.04971	.02339	.01229
1.50	.00000	.01769	.04724	.11642	.33750	.11824	.05136	.02528	.01368
1.75	.00000	.01789	.04585	.10228	.18494	.10430	.05038	.02617	.01463
2.00	.00000	.01743	.04273	.08583	.12780	.08802	.04758	.02621	.01518
2.25	.00000	.01650	.03870	.07078	.09480	.07310	.04379	.02558	.01539
2.50	.00000	.01526	.03434	.05825	.07332	.06066	.03961	.02450	.01531
2.75	.00000	.01387	.03011	.04815	.05832	.05060	.03544	.02313	.01498
3.00	.00000	.01244	.02619	.04004	.04737	.04251	.03154	.02159	.01448
3.25	.00000	.01106	.02270	.03354	.03909	.03601	.02799	.01999	.01387
3.50	.00000	.00976	.01962	.02829	.03267	.03074	.02482	.01841	.01318
3.75	.00000	.00856	.01695	.02402	.02758	.02640	.02203	.01687	.01242
4.00	.00000	.00750	.01465	.02051	.02350	.02016	.01986	.01409	.01093
4.25	.00000	.00655	.01270	.01760	.01741	.01734	.01552	.01286	.01019
4.50	.00000	.00572	.01101	.01520					
Nondimensional coil parameters: $\beta, \gamma, \alpha, 2$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00534	.01434	.03202	.04846	.03252	.01547	.00746	.00391
.50	.00000	.01040	.02794	.06353	.10114	.06451	.03017	.01458	.00767
.75	.00000	.01491	.04000	.09330	.16539	.09474	.04327	.02102	.01115
1.00	.00000	.01865	.04977	.11869	.27695	.12056	.05402	.02651	.01424
1.25	.00000	.02147	.05669	.13603	.36947	.13830	.06180	.03087	.01685
1.50	.00000	.02328	.06043	.14253	.38708	.14514	.06630	.03397	.01893
1.75	.00000	.02410	.06108	.13794	.36259	.14085	.06759	.03584	.02047
2.00	.00000	.02404	.05912	.12488	.26695	.12803	.06613	.03657	.02148
2.25	.00000	.02326	.05528	.10777	.16769	.11112	.06266	.03632	.02198
2.50	.00000	.02195	.05033	.09065	.12368	.09415	.05798	.03532	.02207
2.75	.00000	.02029	.04497	.07559	.09597	.07918	.05276	.03376	.02179
3.00	.00000	.01846	.03965	.06306	.07676	.06670	.04750	.03184	.02124
3.25	.00000	.01659	.03468	.05285	.06268	.05649	.04248	.02975	.02048
3.50	.00000	.01478	.03018	.04454	.05201	.04815	.03787	.02758	.01956
3.75	.00000	.01308	.02620	.03777	.04368	.04132	.03371	.02543	.01856
4.00	.00000	.01151	.02273	.03220	.03706	.03566	.03002	.02336	.01751
4.25	.00000	.01011	.01973	.02760	.03170	.03096	.02676	.02141	.01644
4.50	.00000	.00886	.01714	.02378	.02731	.02702	.02388	.01958	.01538
4.75	.00000	.00776	.01493	.02059	.02366	.02369	.02135	.01789	.01435
5.00	.00000	.00680	.01302	.01789	.02061	.02086	.01912	.01635	.01337
5.25	.00000	.00597	.01139	.01562	.01805	.01844	.01717	.01494	.01243
5.50	.00000	.00524	.00998	.01368	.01587	.01636	.01543	.01365	.01154
5.75	.00000	.00460	.00877	.01203	.01400	.01456	.01391	.01247	.01072
6.00	.00000	.00406	.00773	.01060	.01240	.01299	.01255	.01141	.00994

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00643	.01542	.02934	.04050	.03017	.01725	.00973	.00570
.50	.00000	.01264	.03038	.05858	.08366	.06021	.03402	.01918	.01126
.75	.00000	.01844	.04441	.08721	.13388	.08963	.04979	.02807	.01653
1.00	.00000	.02364	.05702	.11396	.21094	.11711	.06402	.03615	.02139
1.25	.00000	.02806	.06770	.13689	.28010	.14073	.07620	.04319	.02571
1.50	.00000	.03159	.07605	.15433	.31293	.15879	.08589	.04901	.02944
1.75	.00000	.03412	.08178	.16546	.33068	.17046	.09279	.05351	.03249
2.00	.00000	.03564	.08478	.17011	.33706	.17558	.09678	.05662	.03484
2.25	.00000	.03616	.08513	.16842	.33290	.17427	.09790	.05838	.03649
2.50	.00000	.03578	.08304	.16073	.31735	.16688	.09642	.05886	.03747
2.75	.00000	.03462	.07894	.14784	.28694	.15422	.09274	.05822	.03783
3.00	.00000	.03284	.07336	.13141	.22200	.13793	.08741	.05665	.03764
3.25	.00000	.03063	.06689	.11382	.15697	.12042	.08102	.05436	.03699
3.50	.00000	.02816	.06009	.09723	.12358	.10384	.07416	.05157	.03597
3.75	.00000	.02558	.05339	.08273	.10064	.08928	.06728	.04846	.03465
4.00	.00000	.02301	.04708	.07047	.08363	.07693	.06068	.04521	.03313
4.25	.00000	.02055	.04133	.06025	.07049	.06656	.05455	.04194	.03148
4.50	.00000	.01825	.03618	.05173	.06005	.05787	.04897	.03874	.02975
4.75	.00000	.01615	.03165	.04462	.05160	.05055	.04394	.03567	.02799
5.00	.00000	.01426	.02769	.03866	.04465	.04435	.03945	.03278	.02626
5.25	.00000	.01257	.02426	.03363	.03886	.03908	.03546	.03009	.02456
5.50	.00000	.01108	.02127	.02937	.03400	.03457	.03191	.02759	.02292
5.75	.00000	.00977	.01869	.02574	.02825	.03068	.02876	.02530	.02136
6.00	.00000	.00862	.01646	.02264	.02637	.02733	.02596	.02319	.01988
6.25	.00000	.00761	.01452	.01998	.02335	.02441	.02347	.02127	.01849
6.50	.00000	.00674	.01285	.01769	.02075	.02186	.02127	.01952	.01719
6.75	.00000	.00598	.01139	.01571	.01850	.01963	.01929	.01791	.01597
7.00	.00000	.00531	.01012	.01399	.01654	.01767	.01754	.01646	.01484
7.25	.00000	.00472	.00902	.01248	.01483	.01595	.01596	.01513	.01379
7.50	.00000	.00422	.00806	.01117	.01332	.01442	.01455	.01392	.01281
7.75	.00000	.00377	.00721	.01003	.01201	.01307	.01329	.01283	.01191
8.00	.00000	.00338	.00647	.00902	.01084	.01187	.01215	.01182	.01108
8.25	.00000	.00304	.00582	.00813	.00981	.01080	.01113	.01091	.01030
8.50	.00000	.00273	.00525	.00735	.00889	.00984	.01021	.01008	.00959
8.75	.00000	.00247	.00474	.00665	.00808	.00898	.00938	.00932	.00893
9.00	.00000	.00223	.00429	.00604	.00736	.00822	.00862	.00862	.00832

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, \delta$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00676	.01529	.02702	.03589	.02818	.01781	.01110	.00708
.50	.00000	.01336	.03029	.05405	.07380	.05634	.03528	.02199	.01404
.75	.00000	.01967	.04467	.08079	.11699	.08418	.05206	.03244	.02074
1.00	.00000	.02555	.05809	.10642	.17979	.11086	.06777	.04224	.02707
1.25	.00000	.03087	.07022	.12961	.23740	.13505	.08203	.05121	.03291
1.50	.00000	.03550	.08073	.14927	.26957	.15562	.09452	.05918	.03818
1.75	.00000	.03936	.08940	.16489	.29185	.17207	.10495	.06601	.04281
2.00	.00000	.04239	.09607	.17643	.30726	.18435	.11318	.07160	.04672
2.25	.00000	.04453	.10066	.18401	.31703	.19256	.11909	.07589	.04989
2.50	.00000	.04579	.10315	.18773	.32168	.19681	.12268	.07886	.05229
2.75	.00000	.04618	.10358	.18767	.32133	.19717	.12396	.08053	.05394
3.00	.00000	.04575	.10203	.18383	.31582	.19366	.12304	.08095	.05486
3.25	.00000	.04458	.09868	.17625	.30459	.18629	.12007	.08023	.05509
3.50	.00000	.04276	.09374	.16503	.28643	.17519	.11532	.07850	.05471
3.75	.00000	.04043	.08756	.15063	.25845	.16083	.10912	.07591	.05379
4.00	.00000	.03772	.08052	.13413	.20627	.14428	.10189	.07265	.05241
4.25	.00000	.03478	.07305	.11721	.15433	.12724	.09409	.06890	.05065
4.50	.00000	.03174	.06558	.10141	.12565	.11125	.08614	.06485	.04862
4.75	.00000	.02872	.05841	.08749	.10503	.09709	.07838	.06066	.04638
5.00	.00000	.02581	.05174	.07558	.08919	.08489	.07104	.05646	.04402
5.25	.00000	.02308	.04568	.06548	.07656	.07448	.06425	.05234	.04160
5.50	.00000	.02055	.04027	.05694	.06628	.06559	.05805	.04838	.03917
5.75	.00000	.01826	.03549	.04970	.05777	.05798	.05245	.04464	.03678
6.00	.00000	.01620	.03129	.04354	.05063	.05144	.04741	.04112	.03445
6.25	.00000	.01436	.02762	.03827	.04548	.04579	.04291	.03786	.03221
6.50	.00000	.01274	.02442	.03375	.03943	.04089	.03887	.03483	.03007
6.75	.00000	.01130	.02163	.02986	.03500	.03662	.03526	.03205	.02805
7.00	.00000	.01004	.01919	.02650	.03117	.03288	.03203	.02950	.02614
7.25	.00000	.00893	.01707	.02359	.02785	.02960	.02914	.02715	.02435
7.50	.00000	.00796	.01521	.02105	.02495	.02670	.02655	.02501	.02268
7.75	.00000	.00711	.01358	.01883	.02241	.02415	.02423	.02305	.02112
8.00	.00000	.00636	.01216	.01689	.02019	.02189	.02214	.02126	.01966
8.25	.00000	.00570	.01091	.01519	.01822	.01987	.02026	.01962	.01831
8.50	.00000	.00512	.00981	.01369	.01649	.01809	.01856	.01813	.01706
8.75	.00000	.00461	.00884	.01237	.01495	.01649	.01703	.01676	.01590
9.00	.00000	.00416	.00798	.01120	.01358	.01506	.01565	.01551	.01482
9.25	.00000	.00376	.00723	.01015	.01236	.01377	.01440	.01436	.01382
9.50	.00000	.00340	.00655	.00923	.01128	.01262	.01327	.01332	.01290
9.75	.00000	.00309	.00596	.00841	.01030	.01158	.01224	.01235	.01204
10.00	.00000	.00281	.00542	.00767	.00943	.01064	.01130	.01148	.01125
10.50	.00000	.00233	.00452	.00642	.00794	.00903	.00967	.00992	.00984
11.00	.00000	.00195	.00380	.00541	.00673	.00770	.00832	.00861	.00862
11.50	.00000	.00165	.00321	.00459	.00573	.00660	.00719	.00750	.00758
12.00	.00000	.00140	.00273	.00392	.00491	.00569	.00624	.00656	.00668

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3, \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00672	.01477	.02513	.03277	.02656	.01784	.01189	.00806
.50	.00000	.01333	.02932	.05030	.06720	.05315	.03543	.02359	.01601
.75	.00000	.01972	.04342	.07530	.10597	.07954	.05249	.03496	.02374
1.00	.00000	.02579	.05681	.09951	.16069	.10509	.06874	.04580	.03116
1.25	.00000	.03144	.06924	.12192	.21140	.12877	.08388	.05597	.03815
1.50	.00000	.03657	.08047	.14167	.24183	.14971	.09765	.06533	.04465
1.75	.00000	.04112	.09033	.15840	.26458	.16755	.10986	.07376	.05056
2.00	.00000	.04503	.09871	.17213	.28218	.18229	.12037	.08116	.05584
2.25	.00000	.04825	.10554	.18302	.29572	.19408	.12910	.08745	.06042
2.50	.00000	.05076	.11081	.19122	.30577	.20307	.13600	.09260	.06429
2.75	.00000	.05256	.11450	.19685	.31262	.20938	.14108	.09658	.06740
3.00	.00000	.05363	.11663	.20000	.31646	.21307	.14433	.09937	.06976
3.25	.00000	.05399	.11722	.20067	.31731	.21418	.14577	.10099	.07136
3.50	.00000	.05367	.11629	.19887	.31513	.21269	.14544	.10148	.07224
3.75	.00000	.05269	.11389	.19455	.30973	.20856	.14339	.10089	.07243
4.00	.00000	.05110	.11009	.18762	.30078	.20173	.13971	.09929	.07198
4.25	.00000	.04899	.10501	.17804	.28771	.19213	.13452	.09679	.07093
4.50	.00000	.04643	.09882	.16582	.26943	.17980	.12803	.09350	.06936
4.75	.00000	.04352	.09178	.15128	.24355	.16508	.12051	.08958	.06736
5.00	.00000	.04037	.08420	.13525	.19836	.14879	.11229	.08517	.06499
5.25	.00000	.03710	.07642	.11908	.15346	.13228	.10374	.08044	.06235
5.50	.00000	.03382	.06875	.10399	.12756	.11681	.09520	.07553	.05951
5.75	.00000	.03062	.06147	.09062	.10841	.10302	.08695	.07059	.05654
6.00	.00000	.02757	.05472	.07907	.09336	.09101	.07918	.06572	.05351
6.25	.00000	.02472	.04858	.06917	.08114	.08062	.07198	.06101	.05048
6.50	.00000	.02211	.04309	.06070	.07102	.07165	.06539	.05651	.04749
6.75	.00000	.01973	.03822	.05345	.06252	.06389	.05942	.05227	.04458
7.00	.00000	.01759	.03392	.04721	.05530	.05713	.05401	.04829	.04178
7.25	.00000	.01568	.03014	.04183	.04911	.05124	.04915	.04459	.03910
7.50	.00000	.01398	.02681	.03718	.04378	.04609	.04476	.04117	.03655
7.75	.00000	.01248	.02390	.03313	.03915	.04155	.04082	.03801	.03414
8.00	.00000	.01115	.02135	.02961	.03511	.03755	.03727	.03510	.03187
8.25	.00000	.00998	.01910	.02652	.03158	.03401	.03407	.03242	.02975
8.50	.00000	.00895	.01713	.02382	.02848	.03086	.03120	.02997	.02777
8.75	.00000	.00803	.01539	.02145	.02574	.02807	.02860	.02772	.02591
9.00	.00000	.00723	.01386	.01935	.02331	.02557	.02625	.02565	.02418
9.25	.00000	.00652	.01251	.01751	.02116	.02335	.02412	.02376	.02258
9.50	.00000	.00589	.01131	.01587	.01925	.02135	.02220	.02202	.02108
9.75	.00000	.00533	.01025	.01441	.01755	.01955	.02046	.02043	.01970
10.00	.00000	.00483	.00931	.01311	.01602	.01794	.01887	.01896	.01841
10.50	.00000	.00400	.00772	.01092	.01343	.01517	.01612	.01639	.01610
11.00	.00000	.00333	.00645	.00916	.01133	.01290	.01383	.01421	.01411
11.50	.00000	.00280	.00542	.00774	.00963	.01102	.01193	.01236	.01240
12.00	.00000	.00236	.00459	.00658	.00822	.00948	.01033	.01079	.01092
13.00	.00000	.00172	.00335	.00483	.00609	.00710	.00784	.00831	.00854
14.00	.00000	.00128	.00250	.00362	.00460	.00541	.00604	.00648	.00674
15.00	.00000	.00097	.00191	.00277	.00354	.00419	.00472	.00511	.00537

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, 5; \alpha, 1.5$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00124	.00433	.01765	.05302	.01774	.00452	.00159	.00070	
.50	.00000	.00243	.00841	.03405	.11192	.03421	.00879	.00313	.00140	
.75	.00000	.00353	.01206	.04786	.18770	.04809	.01260	.00458	.00206	
1.00	.00000	.00452	.01510	.05785	.34182	.05816	.01580	.00588	.00270	
1.25	.00000	.00536	.01743	.06321	.44173	.06358	.01829	.00703	.00328	
1.50	.00000	.00604	.01901	.06405	.32291	.06449	.02002	.00798	.00379	
1.75	.00000	.00654	.01990	.06131	.17801	.06183	.02106	.00876	.00425	
2.00	.00000	.00689	.02017	.05642	.12388	.05698	.02145	.00932	.00464	
2.25	.00000	.00707	.01992	.05065	.09268	.05125	.02132	.00973	.00497	
2.50	.00000	.00714	.01930	.04481	.07236	.04547	.02081	.00996	.00522	
2.75	.00000	.00707	.01842	.03939	.05822	.04009	.02002	.01004	.00540	
3.00	.00000	.00691	.01736	.03454	.04789	.03528	.01903	.01002	.00555	
3.25	.00000	.00668	.01621	.03031	.04007	.03110	.01796	.00988	.00563	
3.50	.00000	.00641	.01503	.02666	.03401	.02747	.01685	.00967	.00565	
3.75	.00000	.00608	.01388	.02353	.02918	.02436	.01573	.00938	.00565	
4.00	.00000	.00573	.01277	.02083	.02530	.02167	.01464	.00907	.00559	
4.25	.00000	.00538	.01169	.01848	.02211	.01934	.01359	.00872	.00551	
4.50	.00000	.00503	.01070	.01648	.01945	.01734	.01262	.00835	.00540	
Nondimensional coil parameters: $\beta, 5; \alpha, 2$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00166	.00546	.01878	.04572	.01890	.00572	.00217	.00100	
.50	.00000	.00328	.01067	.03669	.09538	.03691	.01119	.00429	.00199	
.75	.00000	.00479	.01543	.05274	.15582	.05307	.01620	.00628	.00294	
1.00	.00000	.00615	.01954	.06588	.26040	.06632	.02055	.00811	.00383	
1.25	.00000	.00733	.02286	.07515	.34718	.07570	.02410	.00973	.00466	
1.50	.00000	.00830	.02532	.07999	.36400	.08063	.02679	.01112	.00540	
1.75	.00000	.00906	.02691	.08048	.34148	.08121	.02859	.01226	.00607	
2.00	.00000	.00961	.02770	.07740	.25252	.07822	.02957	.01315	.00665	
2.25	.00000	.00995	.02777	.07189	.16012	.07279	.02982	.01379	.00713	
2.50	.00000	.01010	.02726	.06519	.11926	.06615	.02947	.01420	.00752	
2.75	.00000	.01008	.02631	.05823	.09357	.05926	.02865	.01440	.00782	
3.00	.00000	.00992	.02504	.05159	.07577	.05268	.02751	.01443	.00803	
3.25	.00000	.00966	.02359	.04556	.06274	.04670	.02615	.01431	.00816	
3.50	.00000	.00929	.02203	.04022	.05283	.04140	.02468	.01406	.00824	
3.75	.00000	.00887	.02044	.03555	.04509	.03677	.02316	.01371	.00824	
4.00	.00000	.00841	.01889	.03149	.03890	.03275	.02165	.01330	.00818	
4.25	.00000	.00792	.01738	.02798	.03387	.02926	.02017	.01283	.00809	
4.50	.00000	.00743	.01595	.02493	.02972	.02621	.01876	.01232	.00795	
4.75	.00000	.00694	.01462	.02228	.02625	.02358	.01743	.01179	.00779	
5.00	.00000	.00646	.01338	.01997	.02331	.02127	.01619	.01126	.00760	
5.25	.00000	.00599	.01224	.01795	.02081	.01925	.01503	.01071	.00739	
5.50	.00000	.00555	.01118	.01618	.01866	.01747	.01395	.01019	.00716	
5.75	.00000	.00512	.01023	.01461	.01680	.01590	.01296	.00967	.00693	
6.00	.00000	.00473	.00935	.01323	.01517	.01450	.01204	.00917	.00669	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00245	.00710	.01906	.03719	.01926	.00756	.00333	.00166
.50	.00000	.00484	.01399	.03766	.07676	.03806	.01491	.00658	.00330
.75	.00000	.00712	.02050	.05524	.12264	.05584	.02186	.00970	.00488
1.00	.00000	.00922	.02642	.07119	.19260	.07197	.02822	.01263	.00639
1.25	.00000	.01113	.03161	.08482	.25542	.08579	.03383	.01530	.00781
1.50	.00000	.01277	.03594	.09558	.28557	.09673	.03856	.01769	.00912
1.75	.00000	.01415	.03934	.10307	.30212	.10438	.04233	.01974	.01030
2.00	.00000	.01525	.04177	.10712	.30840	.10859	.04511	.02146	.01135
2.25	.00000	.01605	.04324	.10781	.30515	.10943	.04690	.02282	.01226
2.50	.00000	.01658	.04381	.10542	.29160	.10717	.04776	.02384	.01302
2.75	.00000	.01684	.04357	.10044	.26464	.10231	.04778	.02453	.01364
3.00	.00000	.01686	.04265	.09361	.20661	.09559	.04709	.02491	.01412
3.25	.00000	.01667	.04118	.08572	.14843	.08780	.04581	.02502	.01447
3.50	.00000	.01630	.03931	.07752	.11861	.07968	.04410	.02488	.01469
3.75	.00000	.01579	.03716	.06958	.09810	.07181	.04209	.02454	.01479
4.00	.00000	.01517	.03486	.06221	.08287	.06450	.03989	.02403	.01480
4.25	.00000	.01446	.03250	.05555	.07105	.05789	.03761	.02339	.01472
4.50	.00000	.01370	.03015	.04964	.06163	.05200	.03531	.02265	.01456
4.75	.00000	.01291	.02786	.04441	.05394	.04680	.03305	.02184	.01433
5.00	.00000	.01212	.02568	.03981	.04757	.04222	.03086	.02097	.01404
5.25	.00000	.01133	.02361	.03578	.04222	.03818	.02878	.02008	.01372
5.50	.00000	.01055	.02169	.03222	.03767	.03461	.02682	.01918	.01335
5.75	.00000	.00981	.01990	.02909	.03378	.03147	.02499	.01827	.01296
6.00	.00000	.00909	.01825	.02632	.03041	.02868	.02327	.01739	.01255
6.25	.00000	.00842	.01674	.02387	.02748	.02620	.02167	.01652	.01213
6.50	.00000	.00779	.01535	.02168	.02491	.02398	.02019	.01568	.01170
6.75	.00000	.00720	.01409	.01974	.02265	.02200	.01882	.01486	.01127
7.00	.00000	.00664	.01293	.01801	.02065	.02023	.01755	.01409	.01083
7.25	.00000	.00613	.01187	.01646	.01887	.01863	.01638	.01335	.01040
7.50	.00000	.00566	.01091	.01507	.01729	.01718	.01530	.01263	.00998
7.75	.00000	.00522	.01003	.01382	.01586	.01588	.01430	.01196	.00957
8.00	.00000	.00482	.00923	.01269	.01459	.01469	.01337	.01133	.00916
8.25	.00000	.00445	.00851	.01167	.01344	.01362	.01251	.01072	.00878
8.50	.00000	.00411	.00784	.01075	.01240	.01264	.01172	.01015	.00840
8.75	.00000	.00380	.00724	.00992	.01146	.01175	.01099	.00961	.00803
9.00	.00000	.00351	.00668	.00916	.01061	.01093	.01030	.00910	.00768

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 4$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00303	.00800	.01847	.03229	.01878	.00869	.00431	.00233
.50	.00000	.00601	.01584	.03664	.06630	.03725	.01722	.00856	.00462
.75	.00000	.00888	.02338	.05416	.10487	.05507	.02543	.01267	.00687
1.00	.00000	.01159	.03045	.07061	.16039	.07181	.03316	.01660	.00902
1.25	.00000	.01410	.03693	.08555	.21136	.08703	.04028	.02027	.01107
1.50	.00000	.01638	.04271	.09857	.24023	.10033	.04666	.02365	.01300
1.75	.00000	.01838	.04768	.10939	.26046	.11141	.05221	.02668	.01477
2.00	.00000	.02008	.05177	.11783	.27466	.12009	.05685	.02935	.01638
2.25	.00000	.02148	.05495	.12382	.28388	.12632	.06053	.03162	.01782
2.50	.00000	.02256	.05720	.12735	.28857	.13005	.06324	.03348	.01907
2.75	.00000	.02332	.05853	.12844	.28885	.13134	.06499	.03494	.02014
3.00	.00000	.02377	.05898	.12719	.28457	.13026	.06582	.03601	.02102
3.25	.00000	.02393	.05862	.12373	.27523	.12696	.06578	.03669	.02172
3.50	.00000	.02383	.05754	.11830	.25980	.12168	.06498	.03701	.02224
3.75	.00000	.02350	.05584	.11129	.23578	.11478	.06352	.03701	.02259
4.00	.00000	.02296	.05365	.10317	.19070	.10677	.06152	.03672	.02278
4.25	.00000	.02224	.05109	.09453	.14575	.09821	.05911	.03619	.02284
4.50	.00000	.02140	.04828	.08589	.12090	.08963	.05641	.03544	.02275
4.75	.00000	.02045	.04533	.07764	.10296	.08143	.05354	.03452	.02256
5.00	.00000	.01943	.04233	.07001	.08909	.07383	.05058	.03346	.02226
5.25	.00000	.01837	.03936	.06310	.07798	.06693	.04761	.03231	.02188
5.50	.00000	.01729	.03648	.05690	.06885	.06073	.04469	.03108	.02142
5.75	.00000	.01621	.03372	.05137	.06121	.05519	.04188	.02982	.02091
6.00	.00000	.01516	.03111	.04646	.05473	.05025	.03919	.02853	.02035
6.25	.00000	.01413	.02866	.04209	.04918	.04585	.03663	.02724	.01975
6.50	.00000	.01315	.02639	.03821	.04438	.04192	.03423	.02597	.01913
6.75	.00000	.01221	.02428	.03475	.04019	.03841	.03198	.02472	.01849
7.00	.00000	.01132	.02234	.03166	.03652	.03526	.02988	.02350	.01784
7.25	.00000	.01049	.02055	.02890	.03328	.03243	.02793	.02232	.01718
7.50	.00000	.00971	.01891	.02643	.03041	.02989	.02611	.02119	.01653
7.75	.00000	.00898	.01741	.02421	.02785	.02759	.02442	.02010	.01589
8.00	.00000	.00831	.01603	.02221	.02556	.02550	.02285	.01906	.01526
8.25	.00000	.00768	.01478	.02041	.02350	.02361	.02139	.01807	.01463
8.50	.00000	.00711	.01363	.01878	.02165	.02190	.02004	.01713	.01403
8.75	.00000	.00657	.01258	.01730	.01998	.02033	.01879	.01624	.01344
9.00	.00000	.00608	.01162	.01596	.01847	.01890	.01763	.01539	.01287
9.25	.00000	.00563	.01074	.01475	.01710	.01760	.01655	.01459	.01232
9.50	.00000	.00521	.00994	.01364	.01585	.01640	.01554	.01383	.01178
9.75	.00000	.00483	.00921	.01264	.01472	.01530	.01461	.01311	.01127
10.00	.00000	.00448	.00853	.01172	.01368	.01429	.01375	.01243	.01078
10.50	.00000	.00386	.00735	.01011	.01186	.01251	.01218	.01120	.00986
11.00	.00000	.00334	.00636	.00876	.01033	.01099	.01083	.01009	.00901
11.50	.00000	.00290	.00552	.00763	.00903	.00969	.00962	.00910	.00824
12.00	.00000	.00252	.00481	.00666	.00793	.00857	.00862	.00822	.00753

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field. $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00340	.00842	.01771	.02906	.01813	.00935	.00509	.00294
.50	.00000	.00675	.01671	.03520	.05951	.03603	.01858	.01012	.00584
.75	.00000	.01001	.02476	.05221	.09358	.05346	.02754	.01503	.00869
1.00	.00000	.01314	.03245	.06844	.14100	.07009	.03613	.01976	.01146
1.25	.00000	.01610	.03967	.08356	.18500	.08560	.04422	.02427	.01411
1.50	.00000	.01884	.04633	.09725	.21189	.09967	.05171	.02850	.01663
1.75	.00000	.02134	.05233	.10932	.23225	.11211	.05851	.03241	.01900
2.00	.00000	.02357	.05761	.11965	.24820	.12278	.06455	.03597	.02120
2.25	.00000	.02551	.06213	.12818	.26064	.13163	.06977	.03914	.02320
2.50	.00000	.02715	.06583	.13489	.27003	.13865	.07414	.04191	.02500
2.75	.00000	.02848	.06871	.13981	.27665	.14385	.07762	.04425	.02660
3.00	.00000	.02948	.07075	.14293	.28061	.14723	.08022	.04616	.02798
3.25	.00000	.03017	.07198	.14429	.28196	.14882	.08194	.04765	.02914
3.50	.00000	.03056	.07240	.14389	.28064	.14863	.08279	.04873	.03009
3.75	.00000	.03065	.07207	.14178	.27651	.14671	.08284	.04939	.03083
4.00	.00000	.03048	.07103	.13800	.26930	.14309	.08212	.04968	.03136
4.25	.00000	.03005	.06937	.13266	.25852	.13788	.08071	.04961	.03169
4.50	.00000	.02941	.06715	.12592	.24326	.13126	.07870	.04921	.03184
4.75	.00000	.02858	.06448	.11808	.22152	.12350	.07619	.04854	.03183
5.00	.00000	.02759	.06147	.10950	.18347	.11498	.07328	.04761	.03166
5.25	.00000	.02648	.05821	.10063	.14560	.10616	.07007	.04648	.03135
5.50	.00000	.02527	.05480	.09188	.12361	.09743	.06667	.04517	.03092
5.75	.00000	.02401	.05134	.08357	.10724	.08912	.06318	.04373	.03038
6.00	.00000	.02270	.04791	.07587	.09427	.08141	.05967	.04219	.02976
6.25	.00000	.02139	.04456	.06886	.08364	.07436	.05621	.04059	.02906
6.50	.00000	.02008	.04133	.06252	.07473	.06798	.05285	.03894	.02829
6.75	.00000	.01880	.03827	.05683	.06715	.06223	.04961	.03728	.02749
7.00	.00000	.01756	.03538	.05174	.06063	.05705	.04653	.03562	.02664
7.25	.00000	.01636	.03268	.04717	.05495	.05240	.04362	.03399	.02578
7.50	.00000	.01523	.03016	.04307	.04998	.04821	.04087	.03238	.02490
7.75	.00000	.01415	.02783	.03940	.04560	.04444	.03830	.03083	.02401
8.00	.00000	.01314	.02568	.03610	.04171	.04102	.03589	.02932	.02313
8.25	.00000	.01219	.02370	.03312	.03825	.03793	.03364	.02786	.02225
8.50	.00000	.01130	.02188	.03044	.03515	.03513	.03154	.02647	.02138
8.75	.00000	.01048	.02021	.02801	.03237	.03257	.02959	.02514	.02053
9.00	.00000	.00971	.01868	.02582	.02986	.03025	.02777	.02386	.01970
9.25	.00000	.00900	.01727	.02382	.02759	.02813	.02607	.02265	.01890
9.50	.00000	.00835	.01598	.02202	.02554	.02619	.02450	.02150	.01811
9.75	.00000	.00774	.01480	.02037	.02367	.02442	.02303	.02040	.01735
10.00	.00000	.00718	.01371	.01887	.02198	.02278	.02166	.01937	.01662
10.50	.00000	.00619	.01181	.01625	.01901	.01990	.01920	.01746	.01523
11.00	.00000	.00535	.01020	.01405	.01652	.01746	.01707	.01574	.01394
11.50	.00000	.00464	.00884	.01220	.01442	.01537	.01520	.01421	.01277
12.00	.00000	.00403	.00769	.01064	.01264	.01358	.01357	.01285	.01169
13.00	.00000	.00308	.00588	.00818	.00981	.01069	.01089	.01053	.00981
14.00	.00000	.00238	.00456	.00638	.00771	.00852	.00882	.00869	.00824
15.00	.00000	.00186	.00358	.00503	.00614	.00686	.00720	.00695	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 10; \alpha, 1.5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00018	.00069	.00443	.05191	.00445	.00073	.00022	.00010
.50	.00000	.00034	.00137	.00865	.10956	.00867	.00141	.00044	.00018
.75	.00000	.00052	.00202	.01242	.18374	.01244	.00210	.00067	.00028
1.00	.00000	.00069	.00264	.01556	.33446	.01560	.00272	.00087	.00036
1.25	.00000	.00085	.00321	.01804	.43221	.01808	.00331	.00107	.00046
1.50	.00000	.00099	.00371	.01975	.31614	.01982	.00385	.00125	.00054
1.75	.00000	.00113	.00415	.02080	.17457	.02086	.00431	.00143	.00062
2.00	.00000	.00125	.00454	.02121	.12173	.02129	.00472	.00161	.00071
2.25	.00000	.00137	.00486	.02113	.09130	.02121	.00504	.00175	.00079
2.50	.00000	.00147	.00510	.02064	.07152	.02074	.00532	.00189	.00085
2.75	.00000	.00157	.00528	.01990	.05775	.02000	.00552	.00204	.00093
3.00	.00000	.00165	.00542	.01895	.04769	.01907	.00566	.00214	.00099
3.25	.00000	.00171	.00550	.01792	.04011	.01804	.00577	.00224	.00105
3.50	.00000	.00177	.00552	.01685	.03423	.01697	.00583	.00234	.00111
3.75	.00000	.00181	.00552	.01578	.02957	.01590	.00583	.00240	.00115
4.00	.00000	.00183	.00546	.01474	.02580	.01488	.00579	.00246	.00119
4.25	.00000	.00185	.00538	.01373	.02272	.01389	.00572	.00250	.00123
4.50	.00000	.00187	.00528	.01278	.02014	.01294	.00564	.00254	.00127
Nondimensional coil parameters: $\beta, 10; \alpha, 2$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00025	.00097	.00558	.04438	.00559	.00100	.00032	.00013
.50	.00000	.00051	.00192	.01092	.09256	.01096	.00199	.00064	.00027
.75	.00000	.00075	.00284	.01582	.15118	.01586	.00294	.00094	.00040
1.00	.00000	.00098	.00370	.02007	.25250	.02013	.00383	.00124	.00054
1.25	.00000	.00121	.00451	.02356	.33660	.02363	.00467	.00154	.00067
1.50	.00000	.00143	.00523	.02620	.35300	.02628	.00543	.00181	.00079
1.75	.00000	.00163	.00588	.02799	.33131	.02808	.00611	.00207	.00091
2.00	.00000	.00181	.00643	.02897	.24532	.02908	.00670	.00233	.00103
2.25	.00000	.00198	.00690	.02925	.15598	.02938	.00719	.00255	.00114
2.50	.00000	.00213	.00727	.02895	.11654	.02908	.00760	.00275	.00124
2.75	.00000	.00227	.00757	.02819	.09176	.02834	.00791	.00294	.00135
3.00	.00000	.00238	.00777	.02712	.07461	.02728	.00814	.00312	.00145
3.25	.00000	.00248	.00790	.02585	.06208	.02602	.00831	.00326	.00153
3.50	.00000	.00256	.00797	.02445	.05257	.02463	.00840	.00339	.00161
3.75	.00000	.00262	.00797	.02300	.04514	.02321	.00843	.00350	.00168
4.00	.00000	.00267	.00792	.02157	.03921	.02178	.00841	.00358	.00175
4.25	.00000	.00270	.00783	.02017	.03439	.02038	.00834	.00365	.00181
4.50	.00000	.00272	.00770	.01883	.03042	.01906	.00822	.00371	.00187
4.75	.00000	.00273	.00754	.01756	.02709	.01779	.00808	.00375	.00191
5.00	.00000	.00272	.00735	.01637	.02429	.01662	.00791	.00377	.00195
5.25	.00000	.00270	.00715	.01526	.02189	.01552	.00773	.00378	.00199
5.50	.00000	.00268	.00693	.01423	.01983	.01450	.00753	.00378	.00202
5.75	.00000	.00264	.00671	.01329	.01805	.01356	.00731	.00377	.00204
6.00	.00000	.00260	.00647	.01241	.01649	.01269	.00709	.00375	.00206

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, 10; \alpha, 3$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00043	.00157	.00723	.03537	.00726	.00163	.00056	.00025	
.50	.00000	.00087	.00311	.01426	.07297	.01431	.00324	.00111	.00049	
.75	.00000	.00129	.00461	.02091	.11656	.02010	.00479	.00165	.00073	
1.00	.00000	.00170	.00604	.02700	.18288	.02710	.00629	.00218	.00097	
1.25	.00000	.00209	.00738	.03238	.24246	.03251	.00768	.00269	.00120	
1.50	.00000	.00247	.00861	.03693	.27114	.03708	.00898	.00318	.00142	
1.75	.00000	.00282	.00973	.04057	.28699	.04075	.01016	.00365	.00164	
2.00	.00000	.00315	.01072	.04327	.29311	.04347	.01120	.00409	.00186	
2.25	.00000	.00346	.01158	.04504	.29021	.04527	.01212	.00449	.00206	
2.50	.00000	.00373	.01230	.04592	.27759	.04617	.01289	.00487	.00225	
2.75	.00000	.00397	.01289	.04600	.25227	.04628	.01353	.00521	.00244	
3.00	.00000	.00419	.01334	.04541	.19758	.04571	.01403	.00552	.00261	
3.25	.00000	.00438	.01367	.04427	.14274	.04459	.01441	.00580	.00277	
3.50	.00000	.00453	.01388	.04271	.11469	.04305	.01467	.00605	.00292	
3.75	.00000	.00466	.01398	.04086	.09543	.04122	.01481	.00626	.00305	
4.00	.00000	.00476	.01399	.03883	.08114	.03921	.01486	.00643	.00318	
4.25	.00000	.00483	.01391	.03671	.07007	.03711	.01483	.00658	.00330	
4.50	.00000	.00488	.01376	.03458	.06124	.03500	.01471	.00669	.00340	
4.75	.00000	.00490	.01354	.03248	.05405	.03292	.01454	.00678	.00349	
5.00	.00000	.00491	.01327	.03045	.04810	.03091	.01430	.00684	.00357	
5.25	.00000	.00489	.01296	.02852	.04310	.02899	.01403	.00687	.00364	
5.50	.00000	.00485	.01262	.02669	.03884	.02717	.01371	.00688	.00370	
5.75	.00000	.00480	.01225	.02497	.03520	.02547	.01337	.00688	.00375	
6.00	.00000	.00474	.01186	.02337	.03204	.02388	.01301	.00685	.00379	
6.25	.00000	.00466	.01146	.02188	.02928	.02240	.01263	.00681	.00382	
6.50	.00000	.00457	.01106	.02049	.02686	.02102	.01225	.00675	.00384	
6.75	.00000	.00448	.01065	.01920	.02473	.01975	.01186	.00668	.00385	
7.00	.00000	.00437	.01024	.01801	.02283	.01856	.01146	.00660	.00386	
7.25	.00000	.00426	.00983	.01691	.02114	.01747	.01108	.00651	.00386	
7.50	.00000	.00415	.00943	.01589	.01962	.01645	.01069	.00640	.00385	
7.75	.00000	.00403	.00904	.01494	.01825	.01551	.01031	.00629	.00383	
8.00	.00000	.00391	.00866	.01406	.01702	.01463	.00994	.00618	.00381	
8.25	.00000	.00379	.00829	.01324	.01590	.01382	.00958	.00606	.00378	
8.50	.00000	.00367	.00794	.01248	.01488	.01307	.00923	.00594	.00376	
8.75	.00000	.00354	.00759	.01178	.01395	.01237	.00889	.00581	.00372	
9.00	.00000	.00342	.00726	.01112	.01310	.01171	.00856	.00568	.00368	

TABLE III. - Continued. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, \lambda_0, \alpha, 4$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00064	.00214	.00813	.03004	.00817	.00224	.00083	.00038	.00038
.50	.00000	.00127	.00425	.01611	.06167	.01619	.00445	.00165	.00075	.00075
.75	.00000	.00189	.00632	.02379	.09749	.02391	.00661	.00246	.00113	.00113
1.00	.00000	.00249	.00830	.03103	.14890	.03119	.00869	.00325	.00149	.00149
1.25	.00000	.00308	.01019	.03770	.19612	.03791	.01067	.00402	.00185	.00185
1.50	.00000	.00364	.01196	.04370	.22299	.04395	.01253	.00476	.00221	.00221
1.75	.00000	.00417	.01359	.04892	.24191	.04921	.01426	.00547	.00255	.00255
2.00	.00000	.00467	.01507	.05331	.25526	.05364	.01583	.00614	.00287	.00287
2.25	.00000	.00513	.01639	.05681	.26403	.05717	.01724	.00677	.00319	.00319
2.50	.00000	.00556	.01755	.05941	.26861	.05981	.01848	.00736	.00349	.00349
2.75	.00000	.00594	.01853	.06112	.26913	.06156	.01955	.00790	.00378	.00378
3.00	.00000	.00629	.01934	.06198	.26543	.06246	.02044	.00839	.00406	.00406
3.25	.00000	.00659	.01998	.06205	.25706	.06256	.02116	.00884	.00431	.00431
3.50	.00000	.00685	.02046	.06140	.24306	.06194	.02171	.00924	.00455	.00455
3.75	.00000	.00707	.02078	.06014	.22116	.06072	.02211	.00959	.00478	.00478
4.00	.00000	.00724	.02096	.05838	.17985	.05899	.02236	.00989	.00498	.00498
4.25	.00000	.00738	.02101	.05623	.13866	.05687	.02247	.01014	.00517	.00517
4.50	.00000	.00748	.02093	.05382	.11593	.05449	.02246	.01035	.00533	.00533
4.75	.00000	.00755	.02075	.05123	.09955	.05193	.02234	.01052	.00549	.00549
5.00	.00000	.00758	.02048	.04856	.08691	.04928	.02212	.01065	.00562	.00562
5.25	.00000	.00758	.02013	.04588	.07677	.04663	.02182	.01074	.00574	.00574
5.50	.00000	.00756	.01971	.04324	.06845	.04401	.02145	.01079	.00584	.00584
5.75	.00000	.00751	.01923	.04069	.06148	.04148	.02103	.01081	.00593	.00593
6.00	.00000	.00743	.01872	.03824	.05557	.03906	.02055	.01080	.00600	.00600
6.25	.00000	.00733	.01817	.03592	.05050	.03676	.02004	.01075	.00605	.00605
6.50	.00000	.00722	.01760	.03374	.04610	.03459	.01951	.01069	.00610	.00610
6.75	.00000	.00708	.01701	.03168	.04225	.03255	.01895	.01060	.00613	.00613
7.00	.00000	.00694	.01641	.02976	.03887	.03064	.01838	.01049	.00614	.00614
7.25	.00000	.00678	.01581	.02797	.03588	.02887	.01780	.01037	.00615	.00615
7.50	.00000	.00662	.01521	.02630	.03321	.02721	.01723	.01023	.00614	.00614
7.75	.00000	.00645	.01462	.02474	.03083	.02566	.01666	.01007	.00613	.00613
8.00	.00000	.00627	.01404	.02329	.02868	.02422	.01609	.00991	.00610	.00610
8.25	.00000	.00609	.01346	.02195	.02674	.02289	.01553	.00973	.00607	.00607
8.50	.00000	.00590	.01290	.02070	.02499	.02164	.01499	.00955	.00603	.00603
8.75	.00000	.00571	.01236	.01953	.02339	.02048	.01445	.00936	.00598	.00598
9.00	.00000	.00553	.01184	.01844	.02194	.01940	.01393	.00917	.00592	.00592
9.25	.00000	.00534	.01133	.01743	.02060	.01839	.01343	.00897	.00586	.00586
9.50	.00000	.00516	.01084	.01648	.01938	.01744	.01294	.00877	.00580	.00580
9.75	.00000	.00497	.01037	.01560	.01826	.01656	.01247	.00857	.00573	.00573
10.00	.00000	.00479	.00992	.01477	.01722	.01574	.01201	.00836	.00565	.00565
10.50	.00000	.00445	.00907	.01328	.01538	.01424	.01115	.00796	.00549	.00549
11.00	.00000	.00411	.00829	.01197	.01379	.01293	.01035	.00757	.00532	.00532
11.50	.00000	.00380	.00758	.01081	.01242	.01176	.00961	.00718	.00515	.00515
12.00	.00000	.00351	.00693	.00979	.01122	.01073	.00893	.00681	.00497	.00497

TABLE III. - Concluded. RADIAL FIELD AT CONSTANT CURRENT DENSITY AS  
FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 10; \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00084	.00263	.00856	.02648	.00862	.00277	.00111	.00053
.50	.00000	.00167	.00523	.01700	.05420	.01712	.00551	.00221	.00105
.75	.00000	.00249	.00778	.02521	.08516	.02539	.00820	.00330	.00157
1.00	.00000	.00329	.01025	.03307	.12806	.03331	.01081	.00437	.00208
1.25	.00000	.00407	.01263	.04049	.16789	.04079	.01333	.00541	.00259
1.50	.00000	.00482	.01489	.04737	.19240	.04772	.01572	.00641	.00308
1.75	.00000	.00553	.01701	.05362	.21105	.05404	.01797	.00738	.00356
2.00	.00000	.00621	.01897	.05920	.22573	.05967	.02006	.00831	.00403
2.25	.00000	.00685	.02076	.06403	.23726	.06456	.02199	.00918	.00448
2.50	.00000	.00744	.02238	.06810	.24605	.06868	.02373	.01001	.00491
2.75	.00000	.00798	.02381	.07136	.25234	.07200	.02528	.01078	.00532
3.00	.00000	.00847	.02504	.07383	.25622	.07452	.02663	.01149	.00571
3.25	.00000	.00891	.02608	.07550	.25775	.07624	.02778	.01214	.00608
3.50	.00000	.00930	.02693	.07640	.25687	.07719	.02874	.01273	.00643
3.75	.00000	.00964	.02759	.07656	.25346	.07740	.02951	.01325	.00676
4.00	.00000	.00992	.02806	.07603	.24725	.07692	.03008	.01372	.00706
4.25	.00000	.01016	.02836	.07488	.23784	.07581	.03048	.01413	.00733
4.50	.00000	.01034	.02850	.07318	.22439	.07415	.03071	.01447	.00759
4.75	.00000	.01048	.02849	.07102	.20513	.07203	.03079	.01476	.00782
5.00	.00000	.01057	.02833	.06849	.17123	.06954	.03072	.01499	.00803
5.25	.00000	.01062	.02806	.06569	.13748	.06678	.03052	.01516	.00821
5.50	.00000	.01062	.02767	.06272	.11793	.06384	.03021	.01529	.00837
5.75	.00000	.01059	.02719	.05965	.10338	.06081	.02980	.01537	.00851
6.00	.00000	.01053	.02663	.05656	.09185	.05775	.02930	.01540	.00862
6.25	.00000	.01043	.02601	.05351	.08240	.05473	.02873	.01539	.00872
6.50	.00000	.01030	.02532	.05054	.07447	.05178	.02811	.01534	.00880
6.75	.00000	.01016	.02460	.04767	.06771	.04894	.02743	.01526	.00885
7.00	.00000	.00998	.02385	.04493	.06188	.04622	.02672	.01515	.00889
7.25	.00000	.00979	.02307	.04234	.05680	.04365	.02599	.01501	.00892
7.50	.00000	.00959	.02229	.03989	.05233	.04122	.02523	.01484	.00892
7.75	.00000	.00936	.02149	.03759	.04837	.03894	.02447	.01465	.00892
8.00	.00000	.00913	.02070	.03543	.04485	.03679	.02371	.01444	.00889
8.25	.00000	.00889	.01991	.03341	.04169	.03478	.02294	.01422	.00885
8.50	.00000	.00864	.01914	.03152	.03885	.03291	.02219	.01398	.00881
8.75	.00000	.00839	.01838	.02975	.03628	.03115	.02144	.01373	.00875
9.00	.00000	.00814	.01764	.02810	.03396	.02951	.02071	.01347	.00868
9.25	.00000	.00788	.01691	.02656	.03183	.02797	.01999	.01320	.00860
9.50	.00000	.00762	.01621	.02512	.02989	.02654	.01929	.01293	.00852
9.75	.00000	.00737	.01553	.02377	.02812	.02519	.01861	.01265	.00842
10.00	.00000	.00711	.01487	.02251	.02649	.02394	.01795	.01237	.00832
10.50	.00000	.00662	.01363	.02023	.02360	.02165	.01669	.01180	.00810
11.00	.00000	.00614	.01248	.01823	.02112	.01964	.01551	.01124	.00787
11.50	.00000	.00569	.01143	.01646	.01898	.01787	.01442	.01068	.00762
12.00	.00000	.00526	.01046	.01490	.01713	.01629	.01341	.01014	.00737
13.00	.00000	.00448	.00878	.01229	.01408	.01364	.01162	.00911	.00684
14.00	.00000	.00381	.00738	.01022	.01170	.01152	.01009	.00817	.00631
15.00	.00000	.00324	.00622	.00856	.00981	.00980	.00878	.00731	.00581

TABLE IV. - RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL TO  
RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, l, \alpha, l, 2$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.02232	.04402	.06217	.07130	.06842	.05721	.04398	.03243	
.50	.00000	.04473	.09027	.13141	.15275	.14331	.11556	.08637	.06268	
.75	.00000	.06572	.13788	.21528	.26301	.23186	.17301	.12372	.08805	
1.00	.00000	.08059	.17648	.30847	.50903	.32826	.21840	.14967	.10518	
1.25	.00000	.08364	.18565	.33895	.62744	.36038	.23077	.15755	.11162	
1.50	.00000	.07415	.15958	.27062	.42282	.29208	.20454	.14678	.10768	
1.75	.00000	.05807	.11876	.17933	.21637	.19966	.16083	.12497	.09651	
2.00	.00000	.04227	.08309	.11790	.13761	.13628	.12071	.10100	.08235	
2.25	.00000	.02990	.05757	.07993	.09328	.09593	.09008	.07977	.06830	
2.50	.00000	.02107	.04032	.05573	.06564	.06939	.06775	.06264	.05577	
2.75	.00000	.01503	.02872	.03985	.04750	.05128	.05159	.04925	.04531	
3.00	.00000	.01089	.02084	.02915	.03512	.03864	.03973	.03895	.03680	
3.25	.00000	.00804	.01545	.02174	.02650	.02954	.03099	.03099	.02993	
3.50	.00000	.00601	.01163	.01647	.02029	.02295	.02443	.02486	.02447	
3.75	.00000	.00461	.00894	.01272	.01581	.01803	.01947	.02010	.02010	
4.00	.00000	.00355	.00695	.00995	.01245	.01436	.01565	.01639	.01659	
4.25	.00000	.00281	.00546	.00788	.00991	.01155	.01272	.01346	.01378	
4.50	.00000	.00222	.00437	.00632	.00800	.00937	.01042	.01112	.01151	

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l; \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01814	.03526	.04927	.05703	.05698	.05109	.04293	.03488
.50	.00000	.03686	.07266	.10339	.12054	.11848	.10370	.08557	.06884
.75	.00000	.05598	.11298	.16779	.20135	.18959	.15791	.12670	.10054
1.00	.00000	.07364	.15248	.24244	.35227	.27000	.20931	.16327	.12805
1.25	.00000	.08687	.18194	.29737	.45841	.32943	.24807	.19120	.14934
1.50	.00000	.09379	.19580	.31588	.46563	.35103	.26820	.20788	.16302
1.75	.00000	.09469	.19626	.31169	.44727	.34841	.27179	.21339	.16889
2.00	.00000	.09092	.18737	.29468	.41719	.33156	.26303	.20936	.16762
2.25	.00000	.08366	.17192	.26935	.37989	.30512	.24511	.19770	.16035
2.50	.00000	.07378	.15134	.23709	.33604	.27074	.21998	.18012	.14838
2.75	.00000	.06203	.12657	.19739	.28295	.22819	.18912	.15833	.13311
3.00	.00000	.04952	.09955	.15042	.20192	.17793	.15520	.13453	.11615
3.25	.00000	.03786	.07452	.10736	.13388	.13146	.12300	.11132	.09911
3.50	.00000	.02824	.05477	.07718	.09220	.09792	.09633	.09072	.08330
3.75	.00000	.02096	.04042	.05672	.06828	.07438	.07564	.07355	.06941
4.00	.00000	.01569	.03024	.04257	.05178	.05746	.05988	.05968	.05768
4.25	.00000	.01190	.02298	.03253	.03997	.04506	.04782	.04864	.04793
4.50	.00000	.00915	.01776	.02527	.03136	.03578	.03856	.03986	.03993
4.75	.00000	.00717	.01392	.01993	.02493	.02876	.03138	.03287	.03340
5.00	.00000	.00567	.01107	.01594	.02008	.02334	.02574	.02730	.02805
5.25	.00000	.00457	.00892	.01289	.01634	.01915	.02130	.02280	.02369
5.50	.00000	.00370	.00726	.01054	.01343	.01585	.01776	.01917	.02009
5.75	.00000	.00305	.00598	.00870	.01114	.01321	.01491	.01621	.01711
6.00	.00000	.00253	.00496	.00726	.00932	.01112	.01260	.01379	.01466
6.25	.00000	.00211	.00417	.00610	.00785	.00941	.01072	.01179	.01262
6.50	.00000	.00179	.00352	.00516	.00666	.00802	.00917	.01015	.01090
6.75	.00000	.00152	.00300	.00440	.00570	.00688	.00791	.00877	.00948
7.00	.00000	.00130	.00256	.00377	.00489	.00592	.00684	.00762	.00825
7.25	.00000	.00112	.00220	.00325	.00424	.00515	.00594	.00664	.00724
7.50	.00000	.00097	.00191	.00282	.00368	.00448	.00518	.00581	.00635
7.75	.00000	.00085	.00166	.00246	.00321	.00392	.00455	.00511	.00561
8.00	.00000	.00074	.00146	.00215	.00282	.00345	.00401	.00451	.00496
8.25	.00000	.00065	.00128	.00190	.00249	.00303	.00354	.00401	.00440
8.50	.00000	.00058	.00114	.00168	.00220	.00269	.00314	.00356	.00394
8.75	.00000	.00051	.00101	.00148	.00195	.00238	.00280	.00318	.00350
9.00	.00000	.00045	.00088	.00132	.00173	.00213	.00251	.00283	.00314

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l; \alpha, 4$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01673	.03251	.04548	.05286	.05322	.04834	.04133	.03428
.50	.00000	.03401	.06698	.09531	.11148	.11052	.09814	.08251	.06784
.75	.00000	.05172	.10414	.15433	.18548	.17649	.14954	.12254	.09957
1.00	.00000	.06828	.14085	.22265	.32123	.25096	.19885	.15889	.12787
1.25	.00000	.08115	.16915	.27425	.41836	.30766	.23761	.18810	.15103
1.50	.00000	.08882	.18433	.29469	.42973	.33204	.26076	.20799	.16790
1.75	.00000	.09161	.18855	.29630	.41989	.33632	.27033	.21878	.17836
2.00	.00000	.09085	.18567	.28817	.40142	.32965	.27028	.22202	.18302
2.25	.00000	.08777	.17852	.27490	.37905	.31675	.26371	.21942	.18280
2.50	.00000	.08321	.16875	.25870	.35476	.29995	.25258	.21234	.17858
2.75	.00000	.07761	.15724	.24063	.32927	.28046	.23803	.20177	.17111
3.00	.00000	.07120	.14427	.22093	.30265	.25866	.22068	.18834	.16096
3.25	.00000	.06398	.12979	.19934	.27439	.23441	.20076	.17248	.14864
3.50	.00000	.05589	.11352	.17506	.24330	.20711	.17825	.15458	.13463
3.75	.00000	.04706	.09529	.14676	.20673	.17556	.15332	.13517	.11951
4.00	.00000	.03796	.07596	.11395	.15175	.13943	.12712	.11526	.10409
4.25	.00000	.02953	.05804	.08368	.10142	.10589	.10253	.09635	.08921
4.50	.00000	.02251	.04373	.06193	.07483	.08109	.08197	.07965	.07564
4.75	.00000	.01712	.03313	.04679	.05700	.06318	.06573	.06562	.06376
5.00	.00000	.01314	.02542	.03605	.04434	.04998	.05311	.05415	.05367
5.25	.00000	.01021	.01981	.02823	.03506	.04006	.04327	.04488	.04521
5.50	.00000	.00806	.01567	.02245	.02812	.03250	.03555	.03739	.03820
5.75	.00000	.00643	.01256	.01810	.02283	.02662	.02945	.03134	.03239
6.00	.00000	.00521	.01021	.01477	.01874	.02202	.02458	.02641	.02758
6.25	.00000	.00427	.00839	.01218	.01555	.01839	.02066	.02240	.02359
6.50	.00000	.00354	.00695	.01014	.01300	.01547	.01750	.01910	.02027
6.75	.00000	.00295	.00583	.00852	.01096	.01311	.01491	.01637	.01749
7.00	.00000	.00250	.00493	.00722	.00932	.01118	.01278	.01411	.01517
7.25	.00000	.00212	.00419	.00616	.00796	.00961	.01103	.01223	.01319
7.50	.00000	.00182	.00359	.00529	.00686	.00829	.00956	.01063	.01153
7.75	.00000	.00156	.00310	.00457	.00594	.00720	.00833	.00930	.01013
8.00	.00000	.00136	.00269	.00397	.00517	.00629	.00728	.00817	.00893
8.25	.00000	.00118	.00234	.00346	.00452	.00551	.00640	.00720	.00788
8.50	.00000	.00104	.00205	.00303	.00398	.00485	.00566	.00637	.00700
8.75	.00000	.00092	.00182	.00269	.00351	.00428	.00501	.00566	.00622
9.00	.00000	.00081	.00160	.00237	.00311	.00381	.00445	.00504	.00556
9.25	.00000	.00071	.00142	.00210	.00276	.00340	.00397	.00450	.00498
9.50	.00000	.00063	.00126	.00188	.00246	.00303	.00355	.00404	.00447
9.75	.00000	.00057	.00114	.00167	.00221	.00272	.00319	.00363	.00403
10.00	.00000	.00051	.00101	.00152	.00199	.00245	.00288	.00327	.00365
10.50	.00000	.00041	.00082	.00123	.00161	.00199	.00235	.00269	.00299
11.00	.00000	.00035	.00068	.00101	.00133	.00164	.00194	.00221	.00248
11.50	.00000	.00028	.00057	.00084	.00111	.00136	.00161	.00185	.00207
12.00	.00000	.00024	.00047	.00070	.00093	.00114	.00136	.00156	.00175

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, l, a, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01582	.03075	.04304	.05011	.05065	.04630	.03990	.03344
.50	.00000	.03217	.06332	.09014	.10563	.10514	.09395	.07969	.06622
.75	.00000	.04891	.09844	.14582	.17544	.16771	.14319	.11847	.09738
1.00	.00000	.06463	.13320	.21022	.30262	.23828	.19059	.15397	.12545
1.25	.00000	.07699	.16024	.25920	.39411	.29252	.22835	.18297	.14885
1.50	.00000	.08458	.17524	.27947	.40630	.31700	.25183	.20352	.16662
1.75	.00000	.08773	.18025	.28250	.39907	.32312	.26301	.21586	.17863
2.00	.00000	.08770	.17887	.27681	.38419	.31946	.26561	.22151	.18552
2.25	.00000	.08569	.17384	.26674	.36617	.31047	.26260	.22211	.18818
2.50	.00000	.08251	.16683	.25456	.34699	.29851	.25590	.21903	.18747
2.75	.00000	.07870	.15874	.24139	.32758	.28489	.24676	.21325	.18410
3.00	.00000	.07453	.15013	.22779	.30834	.27027	.23594	.20544	.17865
3.25	.00000	.07012	.14119	.21402	.28934	.25497	.22385	.19607	.17150
3.50	.00000	.06555	.13198	.20006	.27051	.23910	.21071	.18537	.16295
3.75	.00000	.06075	.12240	.18577	.25157	.22255	.19656	.17351	.15316
4.00	.00000	.05565	.11228	.17083	.23214	.20510	.18130	.16049	.14229
4.25	.00000	.05010	.10129	.15473	.21159	.18624	.16473	.14635	.13046
4.50	.00000	.04399	.08908	.13670	.18889	.16530	.14661	.13113	.11783
4.75	.00000	.03731	.07539	.11563	.16195	.14127	.12688	.11508	.10472
5.00	.00000	.03042	.06080	.09104	.12105	.11373	.10627	.09883	.09159
5.25	.00000	.02398	.04717	.06811	.08307	.08798	.08686	.08344	.07906
5.50	.00000	.01857	.03615	.05139	.06255	.06860	.07047	.06977	.06762
5.75	.00000	.01437	.02786	.03955	.04853	.05437	.05738	.05821	.05757
6.00	.00000	.01122	.02177	.03101	.03841	.04372	.04704	.04865	.04897
6.25	.00000	.00886	.01726	.02471	.03088	.03561	.03886	.04082	.04170
6.50	.00000	.00710	.01387	.01997	.02517	.02931	.03237	.03444	.03562
6.75	.00000	.00577	.01129	.01635	.02073	.02436	.02717	.02921	.03053
7.00	.00000	.00475	.00932	.01353	.01727	.02042	.02297	.02490	.02626
7.25	.00000	.00396	.00776	.01131	.01450	.01727	.01956	.02136	.02270
7.50	.00000	.00331	.00653	.00955	.01229	.01471	.01674	.01841	.01970
7.75	.00000	.00281	.00554	.00813	.01049	.01261	.01443	.01595	.01717
8.00	.00000	.00240	.00473	.00696	.00902	.01088	.01251	.01389	.01503
8.25	.00000	.00207	.00409	.00601	.00781	.00943	.01090	.01214	.01320
8.50	.00000	.00179	.00353	.00521	.00678	.00823	.00954	.01066	.01163
8.75	.00000	.00155	.00308	.00456	.00593	.00722	.00838	.00940	.01030
9.00	.00000	.00136	.00270	.00400	.00521	.00636	.00740	.00833	.00916
9.25	.00000	.00120	.00237	.00352	.00461	.00562	.00656	.00741	.00816
9.50	.00000	.00105	.00211	.00312	.00409	.00500	.00584	.00661	.00729
9.75	.00000	.00094	.00187	.00277	.00363	.00445	.00521	.00590	.00653
10.00	.00000	.00083	.00167	.00248	.00325	.00398	.00467	.00530	.00587
10.50	.00000	.00067	.00133	.00199	.00262	.00322	.00378	.00431	.00479
11.00	.00000	.00054	.00108	.00163	.00213	.00262	.00311	.00354	.00396
11.50	.00000	.00045	.00089	.00133	.00176	.00217	.00256	.00293	.00328
12.00	.00000	.00038	.00075	.00111	.00146	.00182	.00214	.00246	.00275
13.00	.00000	.00026	.00053	.00079	.00104	.00129	.00152	.00176	.00198
14.00	.00000	.00019	.00038	.00057	.00076	.00094	.00111	.00129	.00145
15.00	.00000	.00015	.00029	.00042	.00057	-----	.00083	.00097	.00110

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2, \alpha, 1.5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00980	.02409	.04542	.05988	.04649	.02652	.01429	.00797
.50	.00000	.01878	.04655	.09144	.12680	.09356	.05130	.02745	.01539
.75	.00000	.02611	.06539	.13648	.21416	.13953	.07220	.03852	.02180
1.00	.00000	.03113	.07811	.17205	.40108	.17590	.08669	.04658	.02681
1.25	.00000	.03351	.08289	.18254	.49171	.18703	.09286	.05124	.03026
1.50	.00000	.03336	.07997	.16379	.34102	.16874	.09089	.05261	.03211
1.75	.00000	.03124	.07168	.13153	.18770	.13683	.08324	.05124	.03255
2.00	.00000	.02794	.06116	.10150	.12820	.10695	.07295	.04800	.03185
2.25	.00000	.02414	.05072	.07820	.09359	.08368	.06243	.04377	.03038
2.50	.00000	.02040	.04142	.06084	.07101	.06623	.05284	.03922	.02838
2.75	.00000	.01698	.03365	.04791	.05530	.05313	.04458	.03469	.02611
3.00	.00000	.01403	.02733	.03817	.04391	.04313	.03765	.03052	.02377
3.25	.00000	.01154	.02223	.03072	.03539	.03542	.03188	.02675	.02151
3.50	.00000	.00948	.01817	.02498	.02884	.02933	.02710	.02339	.01933
3.75	.00000	.00783	.01493	.02049	.02377	.02452	.02313	.02046	.01736
4.00	.00000	.00646	.01232	.01693	.01974	.02061	.01982	.01791	.01554
4.25	.00000	.00536	.01023	.01409	.01652	.01745	.01704	.01571	.01388
4.50	.00000	.00449	.00855	.01180	.01394	.01487	.01472	.01380	.01241
Nondimensional coil parameters: $\beta, 2, \alpha, 2$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01053	.02440	.04272	.05426	.04413	.02755	.01615	.00962
.50	.00000	.02040	.04775	.08629	.11383	.08905	.05391	.03139	.01873
.75	.00000	.02897	.06860	.13015	.18822	.13417	.07749	.04478	.02684
1.00	.00000	.03561	.08501	.16935	.32823	.17446	.09627	.05553	.03354
1.25	.00000	.03980	.09506	.19354	.41909	.19955	.10826	.06296	.03856
1.50	.00000	.04139	.09777	.19635	.40515	.20307	.11242	.06684	.04180
1.75	.00000	.04055	.09368	.18018	.35372	.18740	.10931	.06737	.04329
2.00	.00000	.03783	.08471	.15206	.25163	.15955	.10083	.06517	.04325
2.25	.00000	.03392	.07329	.12147	.15893	.12907	.08951	.06102	.04199
2.50	.00000	.02949	.06157	.09531	.11573	.10285	.07754	.05581	.03986
2.75	.00000	.02510	.05087	.07502	.08822	.08236	.06630	.05017	.03719
3.00	.00000	.02104	.04171	.05958	.06913	.06664	.05640	.04461	.03424
3.25	.00000	.01748	.03411	.04781	.05521	.05449	.04795	.03938	.03121
3.50	.00000	.01448	.02794	.03874	.04475	.04500	.04084	.03465	.02826
3.75	.00000	.01199	.02296	.03166	.03667	.03749	.03488	.03041	.02547
4.00	.00000	.00992	.01896	.02607	.03036	.03148	.02990	.02670	.02289
4.25	.00000	.00825	.01572	.02164	.02534	.02659	.02572	.02346	.02052
4.50	.00000	.00688	.01313	.01809	.02131	.02261	.02221	.02063	.01839
4.75	.00000	.00576	.01101	.01521	.01803	.01933	.01926	.01818	.01647
5.00	.00000	.00486	.00928	.01286	.01535	.01661	.01675	.01604	.01474
5.25	.00000	.00411	.00786	.01094	.01313	.01434	.01462	.01417	.01321
5.50	.00000	.00350	.00671	.00936	.01129	.01243	.01281	.01256	.01186
5.75	.00000	.00299	.00574	.00804	.00976	.01083	.01126	.01115	.01065
6.00	.00000	.00256	.00494	.00695	.00847	.00946	.00992	.00959	

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01071	.02360	.03894	.04826	.04091	.02786	.01801	.01173
.50	.00000	.02100	.04659	.07874	.10052	.08259	.05494	.03533	.02302
.75	.00000	.03041	.06804	.11928	.16372	.12491	.08023	.05128	.03345
1.00	.00000	.03846	.08666	.15747	.27330	.16471	.10231	.06518	.04266
1.25	.00000	.04475	.10107	.18652	.35121	.19515	.11970	.07643	.05034
1.50	.00000	.04899	.11033	.20229	.36066	.21209	.13140	.08464	.05626
1.75	.00000	.05112	.11430	.20617	.35120	.21688	.13722	.08967	.06036
2.00	.00000	.05122	.11344	.20102	.33223	.21237	.13765	.09162	.06263
2.25	.00000	.04954	.10852	.18902	.30691	.20076	.13343	.09080	.06321
2.50	.00000	.04644	.10042	.17159	.27593	.18347	.12551	.08765	.06234
2.75	.00000	.04235	.09008	.14984	.23770	.16165	.11491	.08273	.06023
3.00	.00000	.03767	.07861	.12565	.17985	.13722	.10278	.07659	.05723
3.25	.00000	.03282	.06708	.10240	.12705	.11356	.09029	.06984	.05360
3.50	.00000	.02813	.05637	.08275	.09848	.09342	.07840	.06292	.04964
3.75	.00000	.02384	.04698	.06711	.07863	.07719	.06769	.05623	.04555
4.00	.00000	.02005	.03904	.05483	.06394	.06428	.05833	.04996	.04150
4.25	.00000	.01681	.03244	.04514	.05267	.05393	.05030	.04425	.03764
4.50	.00000	.01409	.02703	.03745	.04384	.04556	.04346	.03915	.03400
4.75	.00000	.01181	.02260	.03128	.03679	.03874	.03766	.03461	.03065
5.00	.00000	.00993	.01899	.02629	.03109	.03312	.03272	.03062	.02760
5.25	.00000	.00838	.01603	.02224	.02645	.02848	.02853	.02711	.02483
5.50	.00000	.00710	.01360	.01891	.02263	.02459	.02495	.02404	.02233
5.75	.00000	.00605	.01158	.01616	.01946	.02134	.02188	.02136	.02010
6.00	.00000	.00517	.00992	.01389	.01682	.01860	.01926	.01901	.01809
6.25	.00000	.00444	.00854	.01200	.01460	.01626	.01699	.01695	.01631
6.50	.00000	.00384	.00738	.01041	.01273	.01427	.01504	.01514	.01471
6.75	.00000	.00332	.00641	.00907	.01114	.01257	.01335	.01355	.01329
7.00	.00000	.00290	.00558	.00793	.00980	.01111	.01189	.01216	.01202
7.25	.00000	.00253	.00490	.00696	.00864	.00985	.01061	.01092	.01089
7.50	.00000	.00221	.00430	.00613	.00764	.00876	.00948	.00984	.00987
7.75	.00000	.00195	.00380	.00542	.00678	.00782	.00850	.00888	.00897
8.00	.00000	.00172	.00336	.00481	.00604	.00699	.00765	.00803	.00816
8.25	.00000	.00153	.00298	.00429	.00540	.00627	.00689	.00727	.00743
8.50	.00000	.00136	.00266	.00384	.00484	.00563	.00622	.00660	.00678
8.75	.00000	.00122	.00237	.00343	.00434	.00508	.00563	.00600	.00619
9.00	.00000	.00109	.00213	.00308	.00391	.00458	.00511	.00546	.00567

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2; \alpha, 4$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01041	.02255	.03650	.04496	.03882	.02748	.01866	.01279
.50	.00000	.02049	.04462	.07380	.09340	.07838	.05436	.03675	.02520
.75	.00000	.02986	.06549	.11190	.15132	.11861	.07979	.05371	.03688
1.00	.00000	.03815	.08410	.14821	.24892	.15690	.10261	.06894	.04749
1.25	.00000	.04503	.09933	.17706	.31999	.18754	.12159	.08197	.05676
1.50	.00000	.05026	.11043	.19507	.33334	.20708	.13592	.09243	.06449
1.75	.00000	.05378	.11731	.20353	.33131	.21683	.14546	.10017	.07056
2.00	.00000	.05566	.12037	.20502	.32220	.21934	.15060	.10525	.07494
2.25	.00000	.05605	.12023	.20159	.30914	.21664	.15192	.10778	.07766
2.50	.00000	.05513	.11745	.19457	.29353	.21010	.15003	.10805	.07883
2.75	.00000	.05315	.11254	.18477	.27601	.20052	.14546	.10632	.07859
3.00	.00000	.05026	.10587	.17267	.25676	.18839	.13863	.10288	.07712
3.25	.00000	.04667	.09776	.15848	.23561	.17398	.12993	.09802	.07460
3.50	.00000	.04257	.08855	.14229	.21198	.15738	.11976	.09207	.07125
3.75	.00000	.03815	.07860	.12428	.18429	.13883	.10857	.08536	.06726
4.00	.00000	.03365	.06846	.10530	.14423	.11918	.09694	.07821	.06286
4.25	.00000	.02926	.05868	.08730	.10713	.10043	.08553	.07097	.05824
4.50	.00000	.02516	.04975	.07195	.08569	.08430	.07487	.06391	.05356
4.75	.00000	.02145	.04194	.05951	.07018	.07102	.06529	.05724	.04898
5.00	.00000	.01821	.03530	.04951	.05831	.06020	.05690	.05110	.04460
5.25	.00000	.01543	.02974	.04148	.04895	.05135	.04961	.04552	.04047
5.50	.00000	.01308	.02512	.03496	.04144	.04405	.04335	.04053	.03665
5.75	.00000	.01111	.02130	.02965	.03533	.03798	.03797	.03609	.03315
6.00	.00000	.00946	.01814	.02529	.03029	.03291	.03334	.03216	.02996
6.25	.00000	.00808	.01551	.02168	.02612	.02863	.02936	.02869	.02708
6.50	.00000	.00693	.01333	.01868	.02263	.02502	.02592	.02562	.02447
6.75	.00000	.00597	.01150	.01618	.01970	.02194	.02295	.02293	.02213
7.00	.00000	.00517	.00997	.01407	.01722	.01932	.02038	.02055	.02003
7.25	.00000	.00450	.00868	.01228	.01511	.01706	.01814	.01845	.01815
7.50	.00000	.00392	.00759	.01077	.01331	.01512	.01619	.01660	.01647
7.75	.00000	.00344	.00666	.00949	.01177	.01343	.01448	.01496	.01495
8.00	.00000	.00302	.00587	.00837	.01044	.01198	.01299	.01351	.01359
8.25	.00000	.00267	.00518	.00743	.00929	.01071	.01168	.01222	.01238
8.50	.00000	.00236	.00460	.00661	.00829	.00960	.01053	.01108	.01128
8.75	.00000	.00210	.00409	.00589	.00742	.00863	.00951	.01005	.01030
9.00	.00000	.00187	.00366	.00528	.00666	.00777	.00860	.00914	.00941
9.25	.00000	.00167	.00327	.00474	.00600	.00702	.00780	.00832	.00862
9.50	.00000	.00151	.00294	.00426	.00541	.00636	.00709	.00760	.00791
9.75	.00000	.00135	.00265	.00384	.00489	.00577	.00645	.00694	.00725
10.00	.00000	.00123	.00240	.00348	.00444	.00525	.00589	.00636	.00667
10.50	.00000	.00100	.00196	.00287	.00367	.00436	.00493	.00535	.00566
11.00	.00000	.00083	.00163	.00238	.00307	.00366	.00415	.00454	.00482
11.50	.00000	.00070	.00136	.00199	.00258	.00309	.00351	.00387	.00414
12.00	.00000	.00058	.00115	.00168	.00218	.00262	.00300	.00331	.00356

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 2, \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.01007	.02167	.03481	.04282	.03734	.02698	.01883	.01330
.50	.00000	.01985	.04291	.07039	.08884	.07537	.05344	.03715	.02626
.75	.00000	.02900	.06310	.10673	.14358	.11409	.07861	.05445	.03856
1.00	.00000	.03719	.08128	.14153	.23465	.15109	.10144	.07022	.04991
1.25	.00000	.04413	.09645	.16963	.30161	.18122	.12086	.08402	.06004
1.50	.00000	.04963	.10796	.18796	.31600	.20137	.13613	.09553	.06879
1.75	.00000	.05364	.11575	.19775	.31655	.21272	.14714	.10462	.07604
2.00	.00000	.05621	.12021	.20143	.31088	.21770	.15428	.11133	.08174
2.25	.00000	.05751	.12194	.20088	.30194	.21820	.15810	.11580	.08594
2.50	.00000	.05772	.12147	.19742	.29111	.21551	.15917	.11825	.08871
2.75	.00000	.05703	.11929	.19188	.27907	.21049	.15797	.11890	.09014
3.00	.00000	.05560	.11576	.18479	.26621	.20367	.15492	.11799	.09037
3.25	.00000	.05357	.11112	.17647	.25270	.19540	.15029	.11570	.08949
3.50	.00000	.05103	.10558	.16711	.23856	.18588	.14432	.11223	.08767
3.75	.00000	.04805	.09924	.15681	.22376	.17522	.13717	.10773	.08501
4.00	.00000	.04472	.09220	.14553	.20813	.16344	.12899	.10237	.08165
4.25	.00000	.04111	.08453	.13321	.19137	.15049	.11991	.09631	.07772
4.50	.00000	.03728	.07635	.11975	.17295	.13628	.11012	.08972	.07334
4.75	.00000	.03336	.06785	.10515	.15161	.12085	.09984	.08280	.06867
5.00	.00000	.02946	.05935	.08994	.12114	.10477	.08945	.07576	.06384
5.25	.00000	.02572	.05122	.07552	.09262	.08943	.07938	.06881	.05897
5.50	.00000	.02225	.04381	.06311	.07553	.07608	.07001	.06214	.05420
5.75	.00000	.01912	.03730	.05291	.06288	.06496	.06157	.05589	.04959
6.00	.00000	.01637	.03173	.04461	.05300	.05576	.05412	.05014	.04524
6.25	.00000	.01401	.02702	.03783	.04509	.04811	.04761	.04493	.04116
6.50	.00000	.01199	.02308	.03228	.03864	.04172	.04196	.04024	.03741
6.75	.00000	.01029	.01978	.02769	.03331	.03635	.03706	.03605	.03396
7.00	.00000	.00885	.01702	.02387	.02887	.03181	.03281	.03233	.03083
7.25	.00000	.00764	.01471	.02068	.02515	.02793	.02913	.02902	.02798
7.50	.00000	.00662	.01277	.01801	.02200	.02463	.02592	.02608	.02541
7.75	.00000	.00576	.01112	.01574	.01933	.02178	.02312	.02348	.02309
8.00	.00000	.00503	.00974	.01381	.01705	.01933	.02067	.02118	.02100
8.25	.00000	.00441	.00855	.01217	.01509	.01721	.01854	.01913	.01912
8.50	.00000	.00388	.00754	.01076	.01340	.01537	.01665	.01730	.01743
8.75	.00000	.00344	.00667	.00955	.01194	.01376	.01500	.01569	.01590
9.00	.00000	.00305	.00593	.00850	.01067	.01236	.01353	.01424	.01452
9.25	.00000	.00271	.00529	.00760	.00957	.01112	.01224	.01296	.01329
9.50	.00000	.00242	.00473	.00681	.00860	.01003	.01110	.01180	.01217
9.75	.00000	.00216	.00423	.00612	.00774	.00907	.01008	.01076	.01116
10.00	.00000	.00195	.00381	.00551	.00700	.00823	.00918	.00984	.01025
10.50	.00000	.00159	.00310	.00451	.00575	.00681	.00764	.00826	.00868
11.00	.00000	.00130	.00256	.00373	.00477	.00568	.00641	.00698	.00737
11.50	.00000	.00108	.00213	.00310	.00400	.00476	.00541	.00593	.00631
12.00	.00000	.00090	.00178	.00261	.00337	.00403	.00460	.00507	.00542
13.00	.00000	.00065	.00128	.00188	.00244	.00294	.00338	.00376	.00406
14.00	.00000	.00047	.00094	.00139	.00181	.00219	.00253	.00284	.00309
15.00	.00000	.00036	.00071	.00105	.00137	.00167	.00194	.00218	.00239

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/\sigma_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, 1.5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00433	.01272	.03318	.05616	.03353	.01349	.00582	.00286
.50	.00000	.00836	.02444	.06508	.11875	.06575	.02599	.01130	.00558
.75	.00000	.01184	.03422	.09324	.20015	.09423	.03649	.01611	.00809
1.00	.00000	.01453	.04133	.11319	.37319	.11448	.04424	.02004	.01026
1.25	.00000	.01638	.04531	.12025	.45737	.12177	.04881	.02290	.01202
1.50	.00000	.01734	.04630	.11402	.31901	.11579	.05031	.02474	.01336
1.75	.00000	.01750	.04483	.09973	.17811	.10171	.04924	.02557	.01429
2.00	.00000	.01704	.04170	.08351	.12356	.08565	.04646	.02559	.01483
2.25	.00000	.01611	.03772	.06882	.09182	.07106	.04269	.02495	.01501
2.50	.00000	.01488	.03345	.05661	.07109	.05894	.03858	.02388	.01491
2.75	.00000	.01352	.02931	.04678	.05658	.04916	.03452	.02252	.01459
3.00	.00000	.01213	.02549	.03890	.04598	.04131	.03070	.02103	.01411
3.25	.00000	.01077	.02207	.03259	.03796	.03500	.02722	.01945	.01352
3.50	.00000	.00948	.01908	.02749	.03171	.02987	.02415	.01790	.01282
3.75	.00000	.00834	.01648	.02335	.02680	.02567	.02140	.01643	.01210
4.00	.00000	.00729	.01424	.01993	.02284	.02220	.01902	.01501	.01135
4.25	.00000	.00639	.01234	.01710	.01958	.01929	.01691	.01371	.01063
4.50	.00000	.00556	.01071	.01475	.01691	.01686	.01509	.01250	.00991
Nondimensional coil parameters: $\beta, \gamma, \alpha, 2$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00511	.01398	.03226	.05019	.03271	.01502	.00710	.00367
.50	.00000	.00996	.02715	.06383	.10510	.06473	.02921	.01385	.00722
.75	.00000	.01424	.03869	.09319	.17331	.09452	.04174	.01993	.01047
1.00	.00000	.01775	.04788	.11732	.30057	.11907	.05184	.02508	.01336
1.25	.00000	.02033	.05416	.13239	.38339	.13449	.05891	.02910	.01579
1.50	.00000	.02197	.05731	.13618	.37157	.13861	.06276	.03194	.01770
1.75	.00000	.02264	.05750	.12955	.32579	.13226	.06354	.03357	.01911
2.00	.00000	.02250	.05528	.11581	.23419	.11875	.06179	.03415	.02001
2.25	.00000	.02168	.05140	.09922	.15089	.10233	.05827	.03382	.02044
2.50	.00000	.02040	.04663	.08317	.11208	.08641	.05371	.03281	.02049
2.75	.00000	.01881	.04151	.06925	.08729	.07257	.04874	.03128	.02020
3.00	.00000	.01708	.03653	.05775	.06997	.06111	.04380	.02947	.01967
3.25	.00000	.01531	.03191	.04839	.05724	.05176	.03912	.02748	.01894
3.50	.00000	.01361	.02774	.04079	.04754	.04413	.03486	.02545	.01809
3.75	.00000	.01203	.02407	.03459	.03997	.03787	.03101	.02344	.01714
4.00	.00000	.01058	.02086	.02950	.03393	.03269	.02759	.02153	.01616
4.25	.00000	.00928	.01810	.02530	.02904	.02840	.02460	.01971	.01517
4.50	.00000	.00813	.01573	.02179	.02501	.02479	.02195	.01802	.01417
4.75	.00000	.00712	.01369	.01887	.02169	.02174	.01961	.01647	.01323
5.00	.00000	.00624	.01195	.01640	.01890	.01914	.01757	.01504	.01231
5.25	.00000	.00547	.01044	.01432	.01655	.01692	.01576	.01374	.01145
5.50	.00000	.00481	.00916	.01254	.01454	.01501	.01417	.01256	.01063
5.75	.00000	.00423	.00805	.01103	.01284	.01336	.01278	.01148	.00986
6.00	.00000	.00372	.00709	.00973	.01137	.01193	.01153	.01050	.00914

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, \gamma, \alpha, \delta$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00597	.01488	.03031	.04396	.03100	.01646	.00883	.00502	
.50	.00000	.01170	.02919	.06027	.09137	.06167	.03230	.01734	.00988	
.75	.00000	.01697	.04233	.08902	.14824	.08903	.04691	.02527	.01447	
1.00	.00000	.02159	.05373	.11462	.24550	.11730	.05971	.03235	.01865	
1.25	.00000	.02540	.06291	.13455	.31494	.13780	.07013	.03837	.02235	
1.50	.00000	.02828	.06950	.14716	.32438	.15094	.07786	.04319	.02546	
1.75	.00000	.03020	.07342	.15249	.31712	.15671	.08275	.04673	.02796	
2.00	.00000	.03117	.07473	.15148	.30132	.15609	.08487	.04900	.02983	
2.25	.00000	.03127	.07373	.14530	.27978	.15023	.08451	.05007	.03108	
2.50	.00000	.03058	.07078	.13501	.25309	.14018	.08205	.05007	.03174	
2.75	.00000	.02929	.06638	.12171	.21987	.12706	.07797	.04914	.03189	
3.00	.00000	.02754	.06101	.10678	.16935	.11223	.07277	.04750	.03159	
3.25	.00000	.02548	.05515	.09185	.12308	.09736	.06695	.04531	.03092	
3.50	.00000	.02327	.04922	.07824	.09785	.08375	.06095	.04278	.02994	
3.75	.00000	.02102	.04353	.06652	.08014	.07197	.05508	.04004	.02875	
4.00	.00000	.01884	.03827	.05667	.06686	.06202	.04955	.03723	.02742	
4.25	.00000	.01675	.03351	.04847	.05651	.05370	.04447	.03446	.02599	
4.50	.00000	.01484	.02930	.04165	.04824	.04672	.03987	.03176	.02450	
4.75	.00000	.01312	.02560	.03594	.04151	.04084	.03575	.02921	.02302	
5.00	.00000	.01156	.02239	.03116	.03596	.03586	.03208	.02681	.02156	
5.25	.00000	.01018	.01960	.02713	.03134	.03161	.02882	.02458	.02014	
5.50	.00000	.00896	.01719	.02370	.02745	.02798	.02593	.02253	.01878	
5.75	.00000	.00790	.01510	.02079	.02414	.02484	.02337	.02064	.01749	
6.00	.00000	.00697	.01330	.01829	.02131	.02213	.02110	.01892	.01626	
6.25	.00000	.00616	.01174	.01615	.01889	.01977	.01908	.01734	.01512	
6.50	.00000	.00545	.01038	.01430	.01680	.01773	.01729	.01591	.01404	
6.75	.00000	.00483	.00921	.01270	.01498	.01592	.01569	.01460	.01305	
7.00	.00000	.00429	.00819	.01131	.01339	.01434	.01426	.01341	.01212	
7.25	.00000	.00382	.00730	.01011	.01202	.01294	.01298	.01233	.01126	
7.50	.00000	.00341	.00652	.00905	.01080	.01171	.01183	.01134	.01046	
7.75	.00000	.00305	.00584	.00812	.00973	.01061	.01081	.01045	.00972	
8.00	.00000	.00274	.00524	.00731	.00879	.00964	.00988	.00964	.00904	
8.25	.00000	.00245	.00472	.00660	.00796	.00877	.00905	.00889	.00841	
8.50	.00000	.00222	.00425	.00595	.00722	.00799	.00830	.00821	.00782	
8.75	.00000	.00200	.00384	.00540	.00656	.00730	.00763	.00759	.00729	
9.00	.00000	.00180	.00350	.00490	.00598	.00668	.00701	.00702	.00679	

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \gamma, \alpha, \delta$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00624	.01491	.02878	.04067	.02970	.01692	.00978	.00594
.50	.00000	.01229	.02935	.05734	.08426	.05915	.03334	.01931	.01174
.75	.00000	.01796	.04286	.08496	.13588	.08765	.04875	.02831	.01728
1.00	.00000	.02308	.05495	.11010	.22132	.11362	.06266	.03658	.02245
1.25	.00000	.02751	.06525	.13071	.28388	.13500	.07463	.04391	.02713
1.50	.00000	.03117	.07342	.14548	.29689	.15047	.08433	.05016	.03126
1.75	.00000	.03397	.07938	.15447	.29655	.16009	.09165	.05523	.03476
2.00	.00000	.03592	.08315	.15853	.28990	.16471	.09659	.05910	.03763
2.25	.00000	.03703	.08488	.15863	.27964	.16528	.09930	.06176	.03983
2.50	.00000	.03737	.08476	.15554	.26698	.16259	.09997	.06329	.04138
2.75	.00000	.03699	.08305	.14989	.25244	.15723	.09885	.06375	.04231
3.00	.00000	.03601	.07997	.14207	.23621	.14963	.09617	.06326	.04266
3.25	.00000	.03452	.07578	.13240	.21816	.14011	.09222	.06196	.04250
3.50	.00000	.03263	.07075	.12118	.19780	.12894	.08724	.05998	.04189
3.75	.00000	.03045	.06512	.10878	.17381	.11654	.08153	.05746	.04090
4.00	.00000	.02810	.05920	.09588	.13913	.10357	.07540	.05455	.03960
4.25	.00000	.02567	.05325	.08337	.10685	.09095	.06913	.05139	.03806
4.50	.00000	.02326	.04749	.07201	.08791	.07942	.06295	.04811	.03636
4.75	.00000	.02091	.04210	.06214	.07395	.06934	.05708	.04480	.03453
5.00	.00000	.01871	.03719	.05372	.06308	.06069	.05160	.04154	.03267
5.25	.00000	.01666	.03277	.04659	.05433	.05330	.04660	.03841	.03077
5.50	.00000	.01481	.02885	.04056	.04716	.04700	.04206	.03542	.02890
5.75	.00000	.01313	.02542	.03544	.04119	.04159	.03798	.03262	.02708
6.00	.00000	.01163	.02240	.03109	.03617	.03693	.03433	.03002	.02532
6.25	.00000	.01030	.01977	.02735	.03189	.03291	.03106	.02760	.02364
6.50	.00000	.00914	.01748	.02414	.02824	.02941	.02813	.02538	.02204
6.75	.00000	.00810	.01549	.02138	.02510	.02636	.02552	.02334	.02054
7.00	.00000	.00720	.01375	.01899	.02238	.02368	.02319	.02147	.01912
7.25	.00000	.00641	.01224	.01692	.02000	.02134	.02110	.01975	.01780
7.50	.00000	.00571	.01091	.01511	.01794	.01927	.01923	.01819	.01656
7.75	.00000	.00510	.00975	.01353	.01613	.01743	.01755	.01677	.01542
8.00	.00000	.00457	.00874	.01215	.01454	.01581	.01604	.01546	.01435
8.25	.00000	.00410	.00784	.01093	.01313	.01436	.01468	.01427	.01337
8.50	.00000	.00368	.00706	.00986	.01189	.01307	.01345	.01318	.01244
8.75	.00000	.00331	.00636	.00891	.01079	.01192	.01235	.01219	.01160
9.00	.00000	.00299	.00575	.00807	.00980	.01089	.01135	.01128	.01081
9.25	.00000	.00271	.00521	.00732	.00893	.00996	.01044	.01045	.01008
9.50	.00000	.00245	.00473	.00666	.00815	.00914	.00962	.00969	.00940
9.75	.00000	.00223	.00429	.00607	.00745	.00839	.00888	.00898	.00878
10.00	.00000	.00203	.00391	.00555	.00682	.00771	.00820	.00834	.00820
10.50	.00000	.00169	.00327	.00465	.00575	.00655	.00703	.00722	.00717
11.00	.00000	.00141	.00275	.00392	.00488	.00559	.00604	.00627	.00628
11.50	.00000	.00119	.00232	.00332	.00416	.00480	.00523	.00547	.00553
12.00	.00000	.00101	.00197	.00283	.00356	.00413	.00453	.00477	.00487

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 3; a, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00627	.01468	.02764	.03860	.02872	.01703	.01032	.00655
.50	.00000	.01239	.02895	.05510	.07985	.05724	.03362	.02040	.01298
.75	.00000	.01816	.04240	.08174	.12836	.08493	.04931	.03002	.01917
1.00	.00000	.02346	.05462	.10622	.20740	.11040	.06368	.03897	.02500
1.25	.00000	.02815	.06525	.12669	.26594	.13181	.07632	.04708	.03039
1.50	.00000	.03216	.07404	.14200	.27997	.14798	.08698	.05421	.03526
1.75	.00000	.03543	.08089	.15222	.28213	.15901	.09551	.06028	.03954
2.00	.00000	.03793	.08583	.15816	.27881	.16566	.10196	.06524	.04320
2.25	.00000	.03970	.08900	.16071	.27251	.16884	.10642	.06910	.04621
2.50	.00000	.04077	.09056	.16062	.26436	.16928	.10909	.07188	.04859
2.75	.00000	.04120	.09074	.15846	.25497	.16756	.11015	.07364	.05034
3.00	.00000	.04104	.08970	.15465	.24463	.16408	.10979	.07445	.05148
3.25	.00000	.04036	.08761	.14945	.23353	.15914	.10818	.07440	.05206
3.50	.00000	.03923	.08463	.14306	.22170	.15292	.10548	.07357	.05210
3.75	.00000	.03772	.08086	.13563	.20911	.14557	.10183	.07205	.05168
4.00	.00000	.03590	.07646	.12722	.19566	.13717	.09737	.06994	.05084
4.25	.00000	.03383	.07154	.11792	.18112	.12780	.09224	.06735	.04964
4.50	.00000	.03158	.06624	.10778	.16503	.11755	.08660	.06436	.04813
4.75	.00000	.02922	.06071	.09704	.14637	.10662	.08062	.06108	.04638
5.00	.00000	.02681	.05511	.08608	.11995	.09543	.07449	.05762	.04445
5.25	.00000	.02442	.04963	.07553	.09510	.08461	.06837	.05406	.04239
5.50	.00000	.02209	.04441	.06592	.07986	.07469	.06247	.05049	.04024
5.75	.00000	.01989	.03955	.05750	.06832	.06595	.05688	.04697	.03807
6.00	.00000	.01784	.03512	.05024	.05912	.05835	.05170	.04358	.03589
6.25	.00000	.01594	.03114	.04402	.05158	.05177	.04693	.04035	.03375
6.50	.00000	.01422	.02760	.03869	.04529	.04608	.04261	.03729	.03167
6.75	.00000	.01268	.02448	.03412	.03996	.04114	.03870	.03443	.02966
7.00	.00000	.01129	.02173	.03019	.03543	.03684	.03518	.03178	.02774
7.25	.00000	.01007	.01931	.02678	.03152	.03309	.03201	.02931	.02591
7.50	.00000	.00897	.01720	.02384	.02814	.02979	.02916	.02704	.02419
7.75	.00000	.00801	.01534	.02127	.02520	.02689	.02660	.02495	.02257
8.00	.00000	.00716	.01371	.01904	.02264	.02432	.02430	.02304	.02106
8.25	.00000	.00642	.01228	.01708	.02038	.02205	.02221	.02128	.01964
8.50	.00000	.00575	.01103	.01536	.01840	.02002	.02035	.01966	.01832
8.75	.00000	.00517	.00992	.01384	.01665	.01823	.01866	.01818	.01709
9.00	.00000	.00466	.00894	.01250	.01509	.01662	.01713	.01683	.01594
9.25	.00000	.00420	.00807	.01132	.01372	.01518	.01576	.01559	.01488
9.50	.00000	.00380	.00731	.01027	.01249	.01389	.01450	.01444	.01389
9.75	.00000	.00344	.00663	.00934	.01140	.01273	.01337	.01340	.01297
10.00	.00000	.00313	.00603	.00851	.01041	.01168	.01234	.01244	.01212
10.50	.00000	.00259	.00501	.00710	.00874	.00989	.01055	.01076	.01060
11.00	.00000	.00216	.00419	.00596	.00739	.00843	.00906	.00933	.00930
11.50	.00000	.00182	.00353	.00504	.00628	.00721	.00782	.00812	.00817
12.00	.00000	.00154	.00299	.00429	.00537	.00620	.00677	.00710	.00719
13.00	.00000	.00112	.00219	.00316	.00399	.00466	.00515	.00547	.00563
14.00	.00000	.00084	.00164	.00238	.00302	.00355	.00397	.00427	.00444
15.00	.00000	.00064	.00125	.00182	.00233	-----	.00310	.00337	.00355

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5, \alpha, 1.5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00122	.00424	.01751	.05374	.01758	.00442	.00155	.00069
.50	.00000	.00236	.00826	.03374	.11361	.03390	.00861	.00305	.00137
.75	.00000	.00346	.01182	.04731	.19134	.04754	.01235	.00447	.00201
1.00	.00000	.00442	.01479	.05702	.35623	.05733	.01547	.00574	.00264
1.25	.00000	.00523	.01705	.06213	.43660	.06248	.01789	.00686	.00320
1.50	.00000	.00590	.01860	.06276	.30525	.06317	.01957	.00780	.00371
1.75	.00000	.00638	.01944	.05992	.17147	.06040	.02056	.00854	.00414
2.00	.00000	.00671	.01969	.05504	.11978	.05557	.02094	.00910	.00452
2.25	.00000	.00691	.01944	.04932	.08977	.04993	.02081	.00948	.00483
2.50	.00000	.00696	.01883	.04360	.07018	.04426	.02030	.00971	.00508
2.75	.00000	.00689	.01794	.03832	.05649	.03900	.01952	.00978	.00526
3.00	.00000	.00673	.01690	.03359	.04650	.03433	.01855	.00976	.00539
3.25	.00000	.00651	.01578	.02948	.03893	.03024	.01748	.00963	.00546
3.50	.00000	.00623	.01464	.02592	.03303	.02671	.01639	.00940	.00551
3.75	.00000	.00592	.01352	.02287	.02836	.02368	.01530	.00915	.00549
4.00	.00000	.00559	.01243	.02025	.02457	.02107	.01426	.00884	.00544
4.25	.00000	.00523	.01138	.01797	.02147	.01880	.01324	.00849	.00536
4.50	.00000	.00490	.01042	.01601	.01891	.01687	.01227	.00813	.00526
Nondimensional coil parameters: $\beta, 5, \alpha, 2$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00156	.00520	.01851	.04750	.01860	.00544	.00204	.00093
.50	.00000	.00308	.01015	.03603	.09944	.03623	.01063	.00401	.00185
.75	.00000	.00449	.01464	.05153	.16383	.05185	.01536	.00589	.00274
1.00	.00000	.00577	.01851	.06394	.28355	.06434	.01945	.00759	.00356
1.25	.00000	.00687	.02160	.07231	.36159	.07281	.02276	.00911	.00434
1.50	.00000	.00779	.02386	.07625	.35086	.07683	.02523	.01040	.00504
1.75	.00000	.00848	.02530	.07604	.30825	.07671	.02685	.01146	.00565
2.00	.00000	.00899	.02596	.07256	.22265	.07333	.02771	.01227	.00619
2.25	.00000	.00929	.02596	.06702	.14480	.06786	.02787	.01285	.00663
2.50	.00000	.00941	.02544	.06052	.10861	.06143	.02748	.01323	.00699
2.75	.00000	.00940	.02450	.05392	.08554	.05489	.02667	.01341	.00726
3.00	.00000	.00923	.02329	.04770	.06942	.04872	.02557	.01342	.00746
3.25	.00000	.00897	.02190	.04208	.05758	.04314	.02428	.01329	.00759
3.50	.00000	.00863	.02043	.03713	.04854	.03823	.02290	.01306	.00764
3.75	.00000	.00824	.01894	.03280	.04148	.03394	.02147	.01273	.00765
4.00	.00000	.00780	.01748	.02906	.03581	.03022	.02004	.01233	.00759
4.25	.00000	.00735	.01609	.02581	.03119	.02700	.01867	.01189	.00750
4.50	.00000	.00689	.01476	.02300	.02738	.02420	.01736	.01141	.00738
4.75	.00000	.00642	.01351	.02057	.02419	.02175	.01613	.01093	.00722
5.00	.00000	.00597	.01237	.01843	.02148	.01963	.01497	.01042	.00704
5.25	.00000	.00555	.01130	.01657	.01918	.01777	.01389	.00992	.00684
5.50	.00000	.00513	.01034	.01493	.01721	.01613	.01290	.00943	.00663
5.75	.00000	.00474	.00946	.01348	.01548	.01467	.01198	.00894	.00642
6.00	.00000	.00437	.00864	.01222	.01400	.01338	.01112	.00848	.00619

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00216	.00646	.01883	.04075	.01900	.00685	.00291	.00142
.50	.00000	.00426	.01272	.03701	.08463	.03735	.01348	.00574	.00282
.75	.00000	.00625	.01855	.05385	.13712	.05434	.01970	.00845	.00418
1.00	.00000	.00809	.02379	.06855	.22637	.06921	.02531	.01098	.00546
1.25	.00000	.00972	.02829	.08041	.29023	.08122	.03016	.01327	.00667
1.50	.00000	.01113	.03195	.08892	.29941	.08989	.03415	.01529	.00778
1.75	.00000	.01229	.03471	.09396	.29329	.09507	.03722	.01702	.00878
2.00	.00000	.01319	.03657	.09568	.27937	.09691	.03938	.01844	.00965
2.25	.00000	.01383	.03757	.09445	.26015	.09581	.04066	.01956	.01041
2.50	.00000	.01423	.03779	.09079	.23618	.09226	.04111	.02037	.01104
2.75	.00000	.01440	.03733	.08531	.20621	.08688	.04087	.02088	.01155
3.00	.00000	.01436	.03632	.07867	.16042	.08033	.04004	.02114	.01194
3.25	.00000	.01415	.03488	.07149	.11844	.07324	.03877	.02118	.01221
3.50	.00000	.01379	.03314	.06434	.09558	.06616	.03717	.02101	.01239
3.75	.00000	.01332	.03121	.05757	.07952	.05944	.03535	.02068	.01245
4.00	.00000	.01275	.02918	.05138	.06744	.05329	.03340	.02020	.01244
4.25	.00000	.01213	.02713	.04583	.05800	.04778	.03142	.01963	.01236
4.50	.00000	.01147	.02511	.04093	.05041	.04290	.02944	.01898	.01221
4.75	.00000	.01079	.02317	.03661	.04419	.03860	.02751	.01827	.01201
5.00	.00000	.01011	.02132	.03282	.03903	.03482	.02566	.01752	.01175
5.25	.00000	.00943	.01959	.02949	.03468	.03150	.02392	.01676	.01147
5.50	.00000	.00878	.01798	.02656	.03097	.02856	.02227	.01598	.01115
5.75	.00000	.00815	.01649	.02398	.02779	.02598	.02073	.01522	.01082
6.00	.00000	.00755	.01511	.02171	.02504	.02367	.01930	.01448	.01047
6.25	.00000	.00699	.01385	.01969	.02264	.02163	.01797	.01375	.01011
6.50	.00000	.00646	.01270	.01789	.02053	.01980	.01673	.01304	.00975
6.75	.00000	.00596	.01165	.01629	.01868	.01817	.01559	.01236	.00938
7.00	.00000	.00550	.01068	.01486	.01703	.01671	.01454	.01170	.00901
7.25	.00000	.00507	.00981	.01358	.01557	.01539	.01357	.01108	.00865
7.50	.00000	.00469	.00901	.01243	.01426	.01420	.01267	.01049	.00830
7.75	.00000	.00432	.00829	.01140	.01309	.01312	.01184	.00993	.00795
8.00	.00000	.00399	.00763	.01048	.01205	.01214	.01107	.00940	.00762
8.25	.00000	.00367	.00703	.00963	.01110	.01126	.01036	.00890	.00729
8.50	.00000	.00339	.00648	.00888	.01025	.01045	.00970	.00842	.00698
8.75	.00000	.00314	.00598	.00819	.00947	.00971	.00910	.00797	.00667
9.00	.00000	.00291	.00552	.00756	.00877	.00904	.00854	.00754	.00638

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-									
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00	
Nondimensional coil parameters: $\beta, 5; \alpha, 4$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00256	.00713	.01852	.03712	.01876	.00767	.00357	.00187	
.50	.00000	.00508	.01407	.03653	.07684	.03701	.01515	.00708	.00371	
.75	.00000	.00748	.02066	.05348	.12366	.05418	.02226	.01047	.00549	
1.00	.00000	.00972	.02672	.06874	.20055	.06966	.02883	.01367	.00722	
1.25	.00000	.01178	.03213	.08172	.25704	.08287	.03474	.01663	.00884	
1.50	.00000	.01361	.03679	.09204	.26939	.09341	.03987	.01932	.01035	
1.75	.00000	.01518	.04061	.09957	.26980	.10114	.04414	.02169	.01174	
2.00	.00000	.01648	.04359	.10439	.26455	.10614	.04753	.02374	.01298	
2.25	.00000	.01751	.04570	.10673	.25601	.10866	.05003	.02544	.01409	
2.50	.00000	.01826	.04699	.10689	.24525	.10898	.05167	.02679	.01504	
2.75	.00000	.01875	.04750	.10514	.23276	.10739	.05251	.02781	.01583	
3.00	.00000	.01897	.04732	.10178	.21868	.10416	.05261	.02849	.01648	
3.25	.00000	.01897	.04653	.09708	.20290	.09958	.05207	.02888	.01697	
3.50	.00000	.01877	.04522	.09131	.18500	.09391	.05097	.02899	.01732	
3.75	.00000	.01839	.04351	.08479	.16382	.08747	.04943	.02885	.01754	
4.00	.00000	.01786	.04148	.07786	.13304	.08062	.04755	.02850	.01765	
4.25	.00000	.01722	.03924	.07087	.10436	.07369	.04541	.02797	.01765	
4.50	.00000	.01648	.03687	.06412	.08747	.06700	.04313	.02729	.01754	
4.75	.00000	.01569	.03446	.05782	.07499	.06072	.04076	.02649	.01735	
5.00	.00000	.01485	.03206	.05206	.06519	.05499	.03838	.02562	.01708	
5.25	.00000	.01399	.02972	.04689	.05726	.04982	.03604	.02467	.01675	
5.50	.00000	.01312	.02747	.04227	.05069	.04520	.03376	.02368	.01637	
5.75	.00000	.01228	.02534	.03816	.04517	.04109	.03158	.02267	.01595	
6.00	.00000	.01145	.02334	.03452	.04046	.03742	.02951	.02165	.01550	
6.25	.00000	.01065	.02148	.03128	.03642	.03415	.02756	.02064	.01503	
6.50	.00000	.00989	.01975	.02841	.03290	.03124	.02573	.01965	.01453	
6.75	.00000	.00917	.01816	.02585	.02983	.02863	.02403	.01869	.01403	
7.00	.00000	.00849	.01670	.02355	.02713	.02630	.02244	.01775	.01353	
7.25	.00000	.00786	.01535	.02150	.02474	.02419	.02096	.01685	.01302	
7.50	.00000	.00727	.01412	.01967	.02262	.02230	.01958	.01598	.01252	
7.75	.00000	.00672	.01300	.01803	.02073	.02059	.01831	.01515	.01202	
8.00	.00000	.00621	.01197	.01654	.01903	.01904	.01713	.01436	.01153	
8.25	.00000	.00574	.01103	.01520	.01751	.01764	.01604	.01361	.01105	
8.50	.00000	.00531	.01018	.01399	.01614	.01636	.01503	.01289	.01059	
8.75	.00000	.00491	.00938	.01289	.01490	.01520	.01409	.01221	.01014	
9.00	.00000	.00455	.00867	.01191	.01378	.01413	.01322	.01157	.00971	
9.25	.00000	.00421	.00802	.01100	.01276	.01316	.01240	.01097	.00929	
9.50	.00000	.00390	.00742	.01018	.01184	.01226	.01165	.01040	.00889	
9.75	.00000	.00361	.00687	.00943	.01099	.01144	.01096	.00986	.00849	
10.00	.00000	.00334	.00637	.00874	.01021	.01069	.01030	.00935	.00812	
10.50	.00000	.00289	.00549	.00755	.00886	.00936	.00914	.00841	.00742	
11.00	.00000	.00249	.00475	.00655	.00772	.00822	.00812	.00758	.00678	
11.50	.00000	.00217	.00412	.00570	.00675	.00725	.00723	.00684	.00620	
12.00	.00000	.00188	.00359	.00498	.00593	.00641	.00647	.00617	.00567	

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 5; \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00282	.00746	.01811	.03485	.01842	.00814	.00407	.00224
.50	.00000	.00558	.01474	.03578	.07200	.03639	.01611	.00808	.00446
.75	.00000	.00825	.02171	.05253	.11548	.05344	.02375	.01197	.00662
1.00	.00000	.01077	.02822	.06781	.18557	.06901	.03092	.01569	.00871
1.25	.00000	.01311	.03416	.08112	.23771	.08261	.03748	.01917	.01071
1.50	.00000	.01524	.03940	.09213	.25094	.09389	.04335	.02240	.01259
1.75	.00000	.01713	.04392	.10071	.25373	.10273	.04843	.02531	.01433
2.00	.00000	.01876	.04765	.10696	.25168	.10923	.05272	.02790	.01593
2.25	.00000	.02012	.05059	.11108	.24694	.11358	.05617	.03015	.01736
2.50	.00000	.02120	.05277	.11333	.24050	.11605	.05881	.03203	.01864
2.75	.00000	.02201	.05420	.11396	.23289	.11688	.06067	.03356	.01975
3.00	.00000	.02256	.05493	.11317	.22439	.11628	.06179	.03474	.02068
3.25	.00000	.02286	.05503	.11118	.21511	.11444	.06223	.03559	.02144
3.50	.00000	.02292	.05454	.10811	.20512	.11153	.06204	.03611	.02204
3.75	.00000	.02277	.05354	.10412	.19439	.10766	.06130	.03634	.02248
4.00	.00000	.02244	.05210	.09932	.18282	.10297	.06007	.03630	.02277
4.25	.00000	.02193	.05028	.09385	.17023	.09759	.05843	.03602	.02292
4.50	.00000	.02128	.04817	.08784	.15621	.09165	.05645	.03551	.02294
4.75	.00000	.02053	.04584	.08147	.13990	.08534	.05420	.03483	.02284
5.00	.00000	.01968	.04335	.07495	.11674	.07886	.05177	.03399	.02263
5.25	.00000	.01877	.04077	.06852	.09490	.07245	.04922	.03302	.02234
5.50	.00000	.01782	.03817	.06236	.08141	.06630	.04661	.03196	.02196
5.75	.00000	.01683	.03560	.05661	.07111	.06055	.04399	.03083	.02152
6.00	.00000	.01585	.03309	.05135	.06282	.05527	.04141	.02965	.02102
6.25	.00000	.01488	.03067	.04659	.05594	.05048	.03891	.02843	.02047
6.50	.00000	.01392	.02838	.04230	.05014	.04615	.03650	.02722	.01989
6.75	.00000	.01299	.02623	.03847	.04516	.04227	.03422	.02599	.01929
7.00	.00000	.01210	.02421	.03503	.04086	.03878	.03205	.02479	.01866
7.25	.00000	.01126	.02233	.03196	.03710	.03563	.03001	.02362	.01803
7.50	.00000	.01045	.02059	.02920	.03379	.03280	.02811	.02247	.01739
7.75	.00000	.00970	.01899	.02671	.03087	.03025	.02632	.02136	.01674
8.00	.00000	.00899	.01751	.02449	.02827	.02794	.02465	.02030	.01611
8.25	.00000	.00834	.01616	.02248	.02595	.02585	.02309	.01927	.01548
8.50	.00000	.00772	.01491	.02067	.02386	.02395	.02166	.01829	.01486
8.75	.00000	.00716	.01377	.01903	.02199	.02222	.02031	.01736	.01426
9.00	.00000	.00663	.01272	.01755	.02031	.02064	.01906	.01647	.01367
9.25	.00000	.00614	.01176	.01620	.01878	.01920	.01790	.01563	.01310
9.50	.00000	.00570	.01089	.01497	.01739	.01789	.01681	.01483	.01254
9.75	.00000	.00528	.01008	.01386	.01613	.01668	.01581	.01407	.01201
10.00	.00000	.00490	.00934	.01284	.01497	.01557	.01486	.01335	.01150
10.50	.00000	.00422	.00804	.01107	.01296	.01361	.01318	.01203	.01053
11.00	.00000	.00365	.00695	.00958	.01127	.01194	.01171	.01085	.00964
11.50	.00000	.00317	.00603	.00833	.00985	.01052	.01043	.00979	.00882
12.00	.00000	.00275	.00525	.00727	.00864	.00930	.00931	.00885	.00807
13.00	.00000	.00210	.00402	.00559	.00671	.00733	.00748	.00725	.00676
14.00	.00000	.00162	.00312	.00436	.00528	.00584	.00606	.00598	.00568
15.00	.00000	.00127	.00245	.00344	.00421	.00471	.00495	.00479	.00479

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of-								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, 10; \alpha, 1.5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00017	.00067	.00435	.05264	.00437	.00070	.00022	.00010
.50	.00000	.00035	.00134	.00847	.11129	.00850	.00139	.00042	.00017
.75	.00000	.00050	.00196	.01215	.18739	.01218	.00204	.00065	.00027
1.00	.00000	.00067	.00258	.01526	.34873	.01528	.00266	.00084	.00035
1.25	.00000	.00082	.00313	.01765	.42742	.01770	.00323	.00104	.00045
1.50	.00000	.00097	.00363	.01934	.29903	.01939	.00375	.00122	.00052
1.75	.00000	.00109	.00405	.02033	.16825	.02038	.00420	.00139	.00062
2.00	.00000	.00122	.00442	.02070	.11778	.02078	.00460	.00157	.00070
2.25	.00000	.00134	.00472	.02060	.08848	.02070	.00492	.00171	.00077
2.50	.00000	.00144	.00497	.02013	.06939	.02023	.00519	.00186	.00082
2.75	.00000	.00152	.00514	.01939	.05607	.01948	.00539	.00199	.00089
3.00	.00000	.00159	.00527	.01847	.04633	.01859	.00552	.00209	.00097
3.25	.00000	.00167	.00534	.01747	.03897	.01757	.00562	.00219	.00102
3.50	.00000	.00171	.00539	.01640	.03328	.01653	.00567	.00226	.00107
3.75	.00000	.00176	.00537	.01536	.02873	.01548	.00567	.00234	.00112
4.00	.00000	.00179	.00532	.01434	.02508	.01449	.00564	.00239	.00117
4.25	.00000	.00181	.00524	.01337	.02207	.01352	.00559	.00244	.00122
4.50	.00000	.00181	.00514	.01245	.01958	.01260	.00549	.00249	.00124
Nondimensional coil parameters: $\beta, 10; \alpha, 2$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00023	.00090	.00532	.04620	.00532	.00093	.00029	.00013
.50	.00000	.00047	.00179	.00140	.09669	.01043	.00185	.00060	.00025
.75	.00000	.00070	.00265	.01503	.15925	.01506	.00274	.00087	.00038
1.00	.00000	.00092	.00346	.01903	.27550	.01909	.00359	.00117	.00050
1.25	.00000	.00112	.00421	.02228	.35129	.02235	.00436	.00143	.00061
1.50	.00000	.00133	.00488	.02472	.34100	.02480	.00507	.00169	.00073
1.75	.00000	.00152	.00548	.02633	.29978	.02644	.00570	.00192	.00085
2.00	.00000	.00168	.00601	.02720	.21683	.02730	.00624	.00216	.00096
2.25	.00000	.00184	.00643	.02740	.14142	.02752	.00671	.00238	.00106
2.50	.00000	.00198	.00678	.02705	.10640	.02718	.00707	.00257	.00115
2.75	.00000	.00210	.00704	.02631	.08409	.02645	.00736	.00274	.00125
3.00	.00000	.00222	.00723	.02527	.06855	.02542	.00758	.00289	.00134
3.25	.00000	.00230	.00736	.02405	.05713	.02421	.00773	.00303	.00141
3.50	.00000	.00238	.00741	.02273	.04843	.02289	.00782	.00315	.00150
3.75	.00000	.00244	.00742	.02136	.04162	.02155	.00783	.00325	.00156
4.00	.00000	.00248	.00736	.02002	.03618	.02021	.00782	.00332	.00163
4.25	.00000	.00251	.00728	.01871	.03174	.01891	.00774	.00340	.00168
4.50	.00000	.00252	.00716	.01745	.02808	.01767	.00764	.00344	.00174
4.75	.00000	.00254	.00700	.01627	.02504	.01649	.00751	.00349	.00178
5.00	.00000	.00252	.00682	.01518	.02244	.01540	.00735	.00350	.00182
5.25	.00000	.00251	.00663	.01414	.02024	.01438	.00717	.00351	.00185
5.50	.00000	.00248	.00643	.01320	.01834	.01343	.00698	.00351	.00188
5.75	.00000	.00245	.00623	.01231	.01668	.01256	.00678	.00350	.00190
6.00	.00000	.00242	.00601	.01149	.01525	.01175	.00658	.00349	.00191

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \lambda_0, \alpha, 3$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00037	.00135	.00660	.03902	.00662	.00141	.00047	.00020
.50	.00000	.00074	.00269	.01299	.08102	.01304	.00279	.00095	.00042
.75	.00000	.00109	.00398	.01898	.13124	.01905	.00413	.00140	.00061
1.00	.00000	.00145	.00521	.02439	.21647	.02449	.00541	.00185	.00082
1.25	.00000	.00178	.00636	.02909	.27752	.02919	.00662	.00229	.00101
1.50	.00000	.00210	.00741	.03297	.28643	.03309	.00772	.00271	.00120
1.75	.00000	.00240	.00837	.03596	.28077	.03612	.00872	.00309	.00139
2.00	.00000	.00268	.00920	.03808	.26766	.03825	.00961	.00347	.00157
2.25	.00000	.00294	.00992	.03935	.24950	.03954	.01038	.00381	.00174
2.50	.00000	.00317	.01053	.03984	.22679	.04005	.01102	.00413	.00190
2.75	.00000	.00337	.01101	.03966	.19837	.03990	.01154	.00442	.00206
3.00	.00000	.00356	.01138	.03893	.15486	.03919	.01196	.00468	.00220
3.25	.00000	.00371	.01164	.03777	.11497	.03804	.01226	.00491	.00233
3.50	.00000	.00384	.01180	.03629	.09328	.03658	.01246	.00511	.00246
3.75	.00000	.00395	.01187	.03460	.07809	.03490	.01257	.00529	.00258
4.00	.00000	.00403	.01186	.03279	.06666	.03311	.01260	.00543	.00268
4.25	.00000	.00409	.01178	.03093	.05774	.03127	.01254	.00555	.00278
4.50	.00000	.00412	.01164	.02908	.05058	.02944	.01244	.00565	.00286
4.75	.00000	.00414	.01144	.02728	.04472	.02765	.01228	.00572	.00294
5.00	.00000	.00414	.01120	.02554	.03985	.02592	.01206	.00576	.00301
5.25	.00000	.00412	.01093	.02390	.03574	.02429	.01182	.00579	.00307
5.50	.00000	.00410	.01063	.02236	.03225	.02276	.01155	.00580	.00311
5.75	.00000	.00405	.01031	.02090	.02925	.02132	.01126	.00579	.00315
6.00	.00000	.00399	.00998	.01955	.02664	.01998	.01094	.00577	.00319
6.25	.00000	.00392	.00964	.01830	.02437	.01873	.01062	.00573	.00321
6.50	.00000	.00385	.00929	.01713	.02237	.01759	.01029	.00568	.00322
6.75	.00000	.00376	.00894	.01606	.02060	.01651	.00996	.00561	.00323
7.00	.00000	.00368	.00859	.01506	.01902	.01552	.00963	.00554	.00324
7.25	.00000	.00359	.00825	.01413	.01762	.01460	.00929	.00547	.00324
7.50	.00000	.00348	.00791	.01328	.01636	.01375	.00897	.00537	.00323
7.75	.00000	.00338	.00758	.01248	.01522	.01296	.00865	.00528	.00321
8.00	.00000	.00328	.00726	.01175	.01419	.01223	.00834	.00519	.00320
8.25	.00000	.00318	.00695	.01106	.01327	.01155	.00803	.00509	.00318
8.50	.00000	.00308	.00665	.01043	.01242	.01092	.00774	.00498	.00315
8.75	.00000	.00297	.00636	.00984	.01165	.01034	.00745	.00487	.00312
9.00	.00000	.00287	.00608	.00929	.01093	.00979	.00717	.00477	.00309

TABLE IV. - Continued. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/r_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -									
	.00	.25	.50	.75	1.00	1.25	1.50	1.00	2.00	
Nondimensional coil parameters: $\beta, 10, \alpha, 4$										
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00050	.00175	.00728	.03502	.00731	.00182	.00065	.00030	
.50	.00000	.00101	.00347	.01439	.07247	.01445	.00362	.00130	.00059	
.75	.00000	.00150	.00514	.02115	.11657	.02124	.00537	.00195	.00088	
1.00	.00000	.00198	.00676	.02740	.18881	.02753	.00705	.00257	.00116	
1.25	.00000	.00244	.00828	.03303	.24195	.03319	.00865	.00318	.00144	
1.50	.00000	.00289	.00969	.03792	.25376	.03811	.01014	.00375	.00172	
1.75	.00000	.00331	.01099	.04202	.25438	.04224	.01151	.00432	.00198	
2.00	.00000	.00369	.01215	.04529	.24969	.04554	.01275	.00483	.00224	
2.25	.00000	.00406	.01319	.04771	.24191	.04799	.01384	.00533	.00249	
2.50	.00000	.00439	.01408	.04933	.23205	.04965	.01480	.00579	.00272	
2.75	.00000	.00469	.01482	.05019	.22055	.05054	.01560	.00621	.00295	
3.00	.00000	.00495	.01543	.05037	.20755	.05073	.01627	.00659	.00316	
3.25	.00000	.00519	.01588	.04993	.19295	.05033	.01680	.00694	.00336	
3.50	.00000	.00538	.01622	.04898	.17636	.04940	.01719	.00724	.00355	
3.75	.00000	.00555	.01642	.04759	.15668	.04805	.01745	.00751	.00372	
4.00	.00000	.00568	.01652	.04589	.12800	.04637	.01760	.00774	.00387	
4.25	.00000	.00578	.01652	.04395	.10126	.04445	.01765	.00793	.00401	
4.50	.00000	.00585	.01642	.04187	.08555	.04238	.01760	.00808	.00415	
4.75	.00000	.00590	.01624	.03970	.07396	.04023	.01747	.00820	.00426	
5.00	.00000	.00592	.01599	.03751	.06488	.03807	.01726	.00829	.00437	
5.25	.00000	.00591	.01568	.03534	.05752	.03592	.01699	.00835	.00446	
5.50	.00000	.00588	.01533	.03325	.05143	.03384	.01668	.00839	.00453	
5.75	.00000	.00584	.01494	.03124	.04630	.03185	.01632	.00839	.00460	
6.00	.00000	.00577	.01452	.02933	.04192	.02995	.01593	.00838	.00465	
6.25	.00000	.00569	.01407	.02752	.03816	.02816	.01551	.00833	.00469	
6.50	.00000	.00560	.01360	.02583	.03488	.02648	.01509	.00828	.00472	
6.75	.00000	.00549	.01314	.02423	.03201	.02491	.01463	.00821	.00474	
7.00	.00000	.00537	.01266	.02276	.02947	.02344	.01418	.00812	.00475	
7.25	.00000	.00525	.01219	.02138	.02723	.02207	.01373	.00802	.00475	
7.50	.00000	.00511	.01172	.02010	.02523	.02080	.01327	.00790	.00474	
7.75	.00000	.00497	.01125	.01890	.02343	.01962	.01283	.00778	.00473	
8.00	.00000	.00483	.01079	.01780	.02181	.01852	.01238	.00765	.00471	
8.25	.00000	.00469	.01035	.01677	.02035	.01749	.01195	.00751	.00469	
8.50	.00000	.00454	.00992	.01581	.01902	.01654	.01152	.00736	.00465	
8.75	.00000	.00440	.00950	.01492	.01782	.01566	.01110	.00721	.00461	
9.00	.00000	.00426	.00909	.01409	.01671	.01483	.01070	.00706	.00457	
9.25	.00000	.00411	.00870	.01332	.01570	.01406	.01031	.00691	.00452	
9.50	.00000	.00397	.00832	.01259	.01477	.01333	.00993	.00675	.00447	
9.75	.00000	.00383	.00795	.01192	.01392	.01266	.00957	.00660	.00441	
10.00	.00000	.00369	.00760	.01129	.01314	.01203	.00922	.00643	.00435	
10.50	.00000	.00341	.00695	.01015	.01173	.01089	.00855	.00612	.00423	
11.50	.00000	.00316	.00635	.00915	.01053	.00988	.00793	.00582	.00410	
11.00	.00000	.00292	.00580	.00826	.00948	.00899	.00736	.00551	.00396	
12.00	.00000	.00269	.00531	.00748	.00857	.00821	.00684	.00523	.00382	

TABLE IV. - Concluded. RADIAL FIELD AT CURRENT DENSITY INVERSELY PROPORTIONAL  
TO RADIUS AS FUNCTION OF RADIUS AND AXIAL POSITION

Radius, $r/a_1$	Radial field $B_r/B_0$ at axial position $z/L$ of -								
	.00	.25	.50	.75	1.00	1.25	1.50	1.75	2.00
Nondimensional coil parameters: $\beta, \lambda_0, \alpha, 5$									
.00	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000	.00000
.25	.00000	.00063	.00206	.00763	.03243	.00767	.00217	.00083	.00039
.50	.00000	.00126	.00410	.01510	.06697	.01519	.00430	.00165	.00077
.75	.00000	.00188	.00610	.02227	.10733	.02240	.00640	.00246	.00115
1.00	.00000	.00248	.00802	.02900	.17219	.02917	.00843	.00326	.00153
1.25	.00000	.00306	.00985	.03517	.22053	.03539	.01036	.00404	.00190
1.50	.00000	.00363	.01159	.04069	.23302	.04095	.01218	.00479	.00226
1.75	.00000	.00416	.01319	.04550	.23591	.04581	.01389	.00550	.00261
2.00	.00000	.00466	.01466	.04956	.23432	.04990	.01545	.00618	.00295
2.25	.00000	.00513	.01599	.05286	.23024	.05324	.01687	.00682	.00328
2.50	.00000	.00556	.01716	.05540	.22459	.05583	.01813	.00743	.00359
2.75	.00000	.00596	.01818	.05722	.21785	.05769	.01924	.00799	.00389
3.00	.00000	.00632	.01903	.05836	.21027	.05886	.02018	.00850	.00417
3.25	.00000	.00663	.01974	.05886	.20196	.05940	.02097	.00897	.00444
3.50	.00000	.00691	.02029	.05879	.19298	.05936	.02160	.00939	.00470
3.75	.00000	.00714	.02069	.05819	.18330	.05879	.02208	.00976	.00493
4.00	.00000	.00734	.02096	.05714	.17284	.05778	.02242	.01009	.00514
4.25	.00000	.00750	.02110	.05571	.16141	.05638	.02263	.01037	.00534
4.50	.00000	.00762	.02112	.05395	.14866	.05465	.02271	.01061	.00552
4.75	.00000	.00771	.02103	.05195	.13378	.05268	.02268	.01080	.00569
5.00	.00000	.00776	.02084	.04977	.11257	.05053	.02256	.01095	.00583
5.25	.00000	.00778	.02057	.04747	.09257	.04825	.02234	.01106	.00596
5.50	.00000	.00776	.02022	.04511	.08023	.04592	.02204	.01113	.00607
5.75	.00000	.00773	.01981	.04274	.07082	.04357	.02169	.01118	.00616
6.00	.00000	.00767	.01935	.04041	.06325	.04126	.02127	.01119	.00625
6.25	.00000	.00758	.01885	.03813	.05696	.03901	.02082	.01117	.00631
6.50	.00000	.00748	.01831	.03595	.05164	.03684	.02031	.01112	.00636
6.75	.00000	.00736	.01775	.03385	.04708	.03477	.01979	.01104	.00640
7.00	.00000	.00722	.01718	.03188	.04312	.03281	.01925	.01095	.00642
7.25	.00000	.00708	.01660	.03001	.03965	.03095	.01869	.01083	.00643
7.50	.00000	.00692	.01600	.02826	.03659	.02922	.01813	.01070	.00643
7.75	.00000	.00675	.01541	.02661	.03387	.02758	.01755	.01056	.00642
8.00	.00000	.00657	.01483	.02507	.03144	.02606	.01699	.01040	.00640
8.25	.00000	.00639	.01425	.02364	.02926	.02463	.01642	.01023	.00637
8.50	.00000	.00621	.01368	.02230	.02729	.02329	.01587	.01005	.00634
8.75	.00000	.00602	.01312	.02105	.02551	.02205	.01532	.00985	.00629
9.00	.00000	.00583	.01258	.01988	.02388	.02089	.01479	.00966	.00623
9.25	.00000	.00564	.01205	.01879	.02241	.01980	.01427	.00946	.00618
9.50	.00000	.00545	.01155	.01777	.02106	.01878	.01376	.00926	.00611
9.75	.00000	.00527	.01106	.01681	.01982	.01784	.01327	.00906	.00604
10.00	.00000	.00508	.01059	.01593	.01867	.01694	.01279	.00885	.00597
10.50	.00000	.00472	.00969	.01431	.01665	.01534	.01189	.00844	.00581
11.00	.00000	.00438	.00887	.01290	.01492	.01391	.01104	.00803	.00563
11.50	.00000	.00405	.00812	.01165	.01341	.01266	.01027	.00763	.00545
12.00	.00000	.00374	.00743	.01055	.01211	.01154	.00954	.00724	.00527
13.00	.00000	.00318	.00623	.00870	.00996	.00967	.00826	.00650	.00488
14.00	.00000	.00271	.00523	.00724	.00829	.00816	.00717	.00582	.00451
15.00	.00000	.00230	.00441	.00607	.00695	.00695	.00624	.00520	.00414

TABLE V. - VALUES OF INDUCTION AT CENTER  
OF EACH SOLENOID

Nondimensional coil parameters		Nondimensional induction	
		$\frac{B_0}{\mu J_1 a_1}$	$\frac{B_0}{\mu Ja_1}$
$\beta$	$\alpha$	( $J \propto 1/a$ )	( $J = \text{const.}$ )
1	1.5	0.256230	0.313389
	2	.400162	.562261
	3	.553923	.937072
	4	.633006	1.213338
	5	.682684	1.431064
2	1.5	0.345022	0.423869
	2	.562261	.800323
	3	.818489	1.427103
	4	.962423	1.924845
	5	1.053599	2.332038
3	1.5	0.374311	0.461285
	2	.623684	.893085
	3	.937072	1.661770
	4	1.125299	2.313486
	5	1.249621	2.869034
5	1.5	0.393541	0.484915
	2	.665207	.956725
	3	1.028642	1.850676
	4	1.264846	2.669891
	5	1.431064	3.413417
10	1.5	0.402377	0.496086
	2	.685784	.988561
	3	1.079326	1.958387
	4	1.350992	2.902012
	5	1.554587	3.813776



